

Settlement Confidential

Inadmissible For Any Purpose

Meeting with Honeywell & Government

Onondaga Lake Superfund Site

June 25, 2010

Honeywell

Proposed Agenda

Honeywell

- Overview of Lake Remedy and Progress
- Government Ownership and Operation in Syracuse
 - 26 Specific Locations
 - ◆ 8 primary contributors
- Conservative Assumptions
- Potential Calculation of Government Share of Costs

Onondaga Lake Overview

Honeywell

- Remedial Investigation (1992-2000):
Evaluated concerns related to mercury and other hazardous substances in Onondaga Lake
- Feasibility Study (2004):
Evaluated a full range of potential remedial technologies and alternatives for Onondaga Lake
- Record of Decision (“ROD”) issued by EPA and NYSDEC in 2005:
 - 2.6 million cy of dredging
 - 425 acres of isolation capping
- Consent Decree entered between State and Honeywell in 2007
- Honeywell stepped up to implement remedy



References:
NYSDEC & USEPA. 2005

Onondaga Lake and Tributaries

DRAFT

Honeywell



Note:
2003 Onondaga County
12-inch Resolution
Natural Color Orthoimagery



0 0.5 1
Miles

Onondaga Lake
Tributaries

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Selected Remedy for Onondaga Lake

Honeywell

- Dredging
 - Up to an estimated 2.65 million cubic yards in the littoral zone
- Sediment Management
 - Transportation and containment of sediments at upland SCA
 - Stringent water treatment of dredge supernatant water
- Capping
 - Isolation layer capping of an estimated 425 acres
- Habitat Enhancement
 - Improvement of habitat conditions along 1.5 miles of shoreline
 - Encouragement of submerged vegetation growth over 23 acres
- Monitoring Natural Recovery in profundal zone
- Oxygenation / Nitrification within the profundal zone

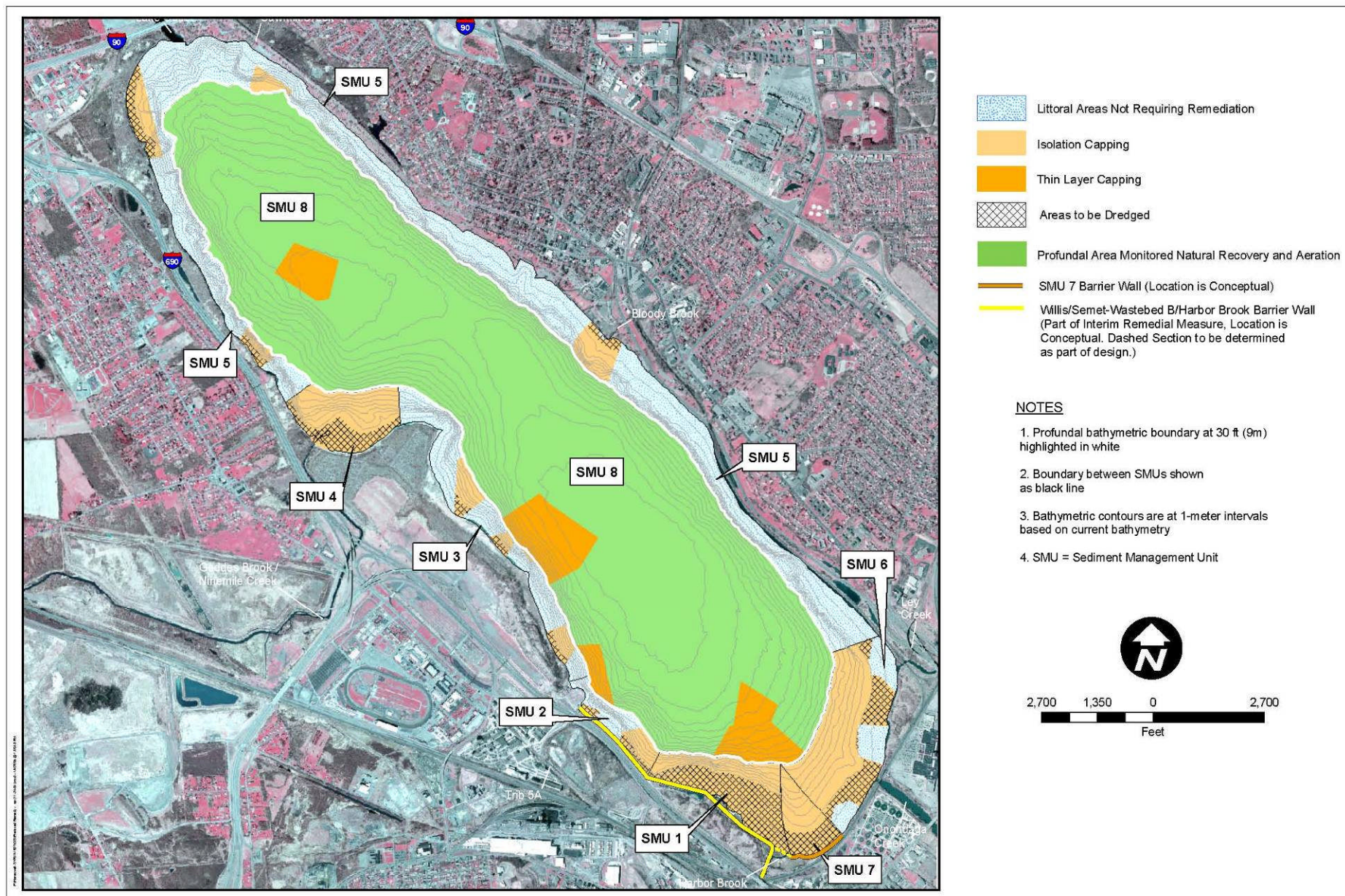
References:

1 - NYSDEC & USEPA. 2005

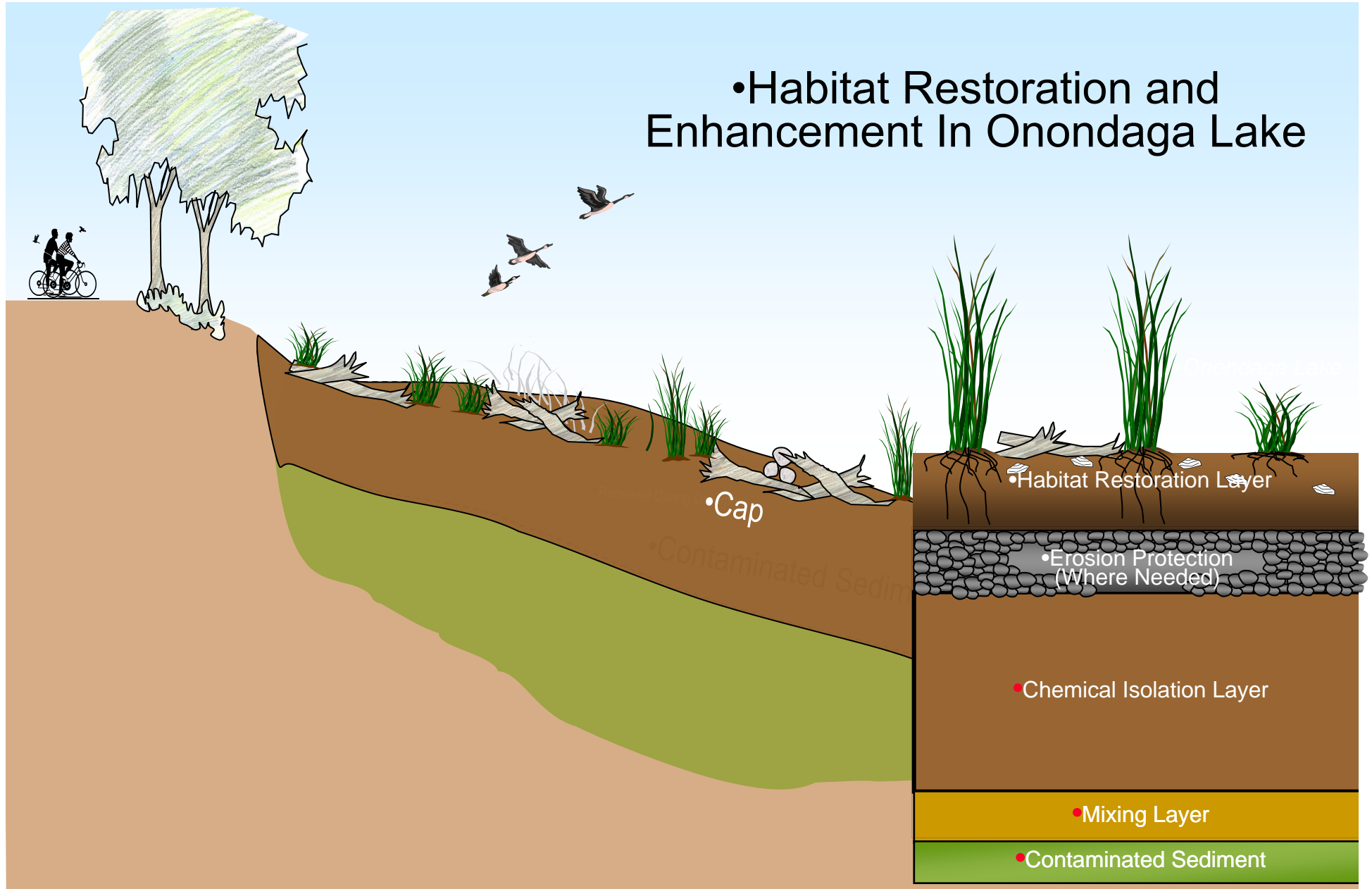


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Onondaga Lake Remedy

Honeywell


•Habitat Restoration and Enhancement In Onondaga Lake



Schedule For Design and Implementation

Honeywell

- Begin dredging within 5 years of entry of Consent Decree (2012); 4 years to complete remediation
- Summary level schedule and key milestones developed in Remedial Design Work Plan (RDWP)
- Schedule requires SCA and water treatment system to be operational prior to start of dredging
- Requires parallel rather than sequential design activities
- Several technical challenges remain; extensive use of national scientists and experts in design process

Remediation Costs

Honeywell

SMU	Dredging	SCA Construction	Water Treatment	Operation & Maintenance	Capping	Habitat Reestablishment	Total for SMU
	Cost ⁽¹⁾	Cost ⁽¹⁾	Cost ⁽¹⁾	Cost ⁽²⁾	Cost ⁽³⁾	Cost ⁽⁴⁾	Cost
6	\$5,027,240	\$13,762,725	\$9,522,335	\$3,063,833	\$21,743,739	\$494,986	\$53,614,858
7	\$1,826,222	\$4,999,520	\$3,459,134	\$2,871,107	\$12,004,203	\$152,923	\$25,313,109
Notes: (1) SMU Cost based on Percentage of Dredge Volume. (2) SMU Cost proportional to SMU percentage of total capital costs. (3) SMU Cost = sum of containment, sand, gravel, and rock costs. (4) SMU Cost based on percentage of Cap Area.							

- Total remediation cost for SMUs 6 and 7:
 - \$78,927,967

Other PRPs

Honeywell

- DEC recognizes that PRPs other than Honeywell have impacted Onondaga Lake:
 - Record of Decision:
 - Identifies several upland sources not associated with Honeywell:

“Elevated levels of cadmium, chromium, copper, lead, nickel, and zinc are found in the lake sediments. The pattern of contamination suggests sources other than, or in addition to, Honeywell for many of these metals. In part because of their longevity in the environment, these metals can be found at levels above background throughout the sediments of the lake bottom.”
 - Consent Decree:
 - States that Honeywell is not responsible for failure to meet performance standards if failure is due to continuing non-Honeywell sources.

References:

(1) NYSDEC & USEPA. 2005

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Proposed Agenda

Honeywell

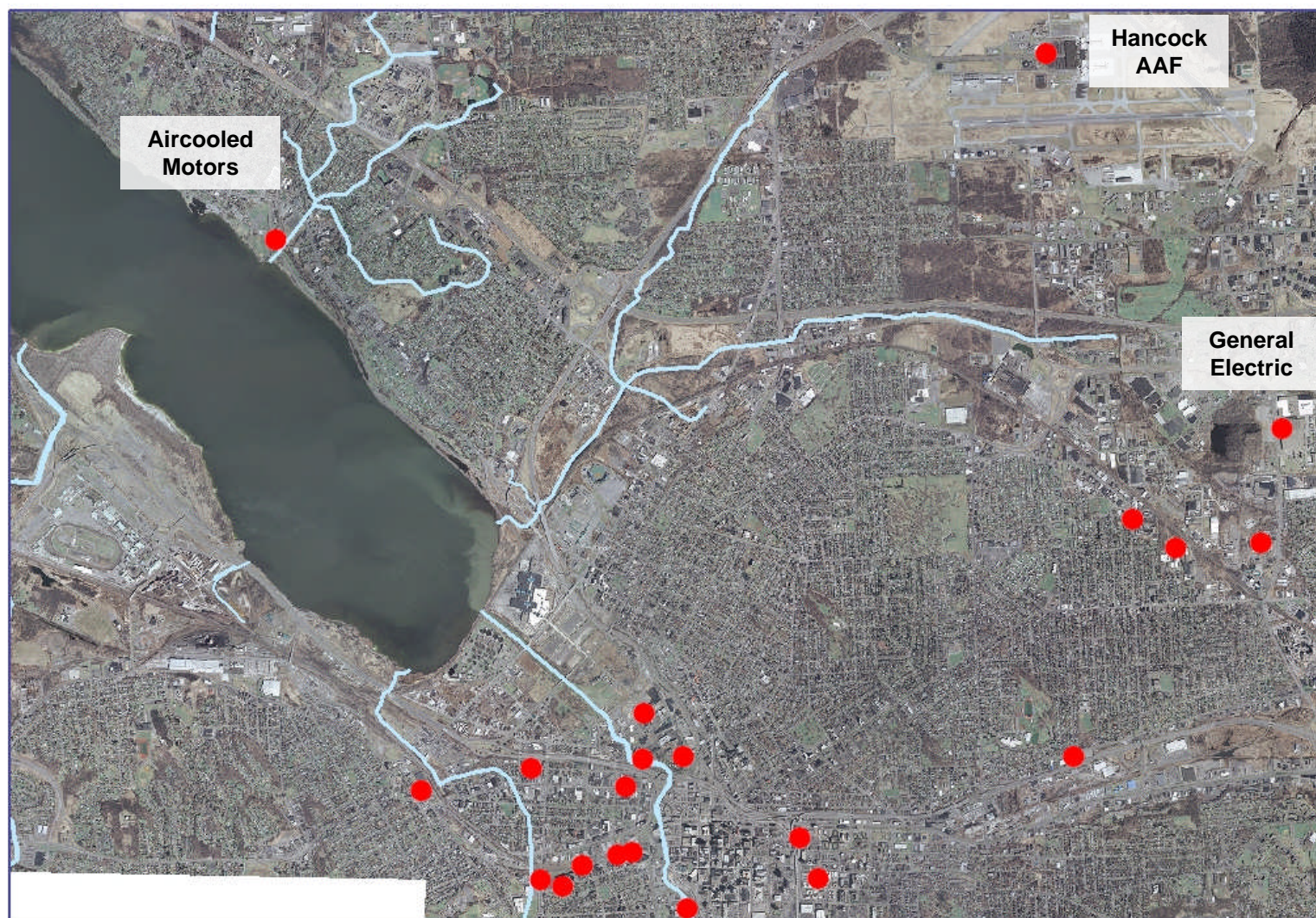
- Overview of Lake Remedy and Progress
- Government Ownership and Operation in Syracuse
 - 26 Specific Locations
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Wartime Presence in Syracuse

Honeywell

- Throughout the Second World War, the United States' wartime production in Syracuse was significant
- Extensive documentary evidence regarding 8 separate facilities that were either owned by the United States, or that operated equipment owned by the United States, which discharged significant quantities of hazardous substances to Onondaga Lake
- In addition, at least 18 additional facilities owned/operated by the United States that contributed hazardous substances to Onondaga Lake

Government Facilities Discharging to Onondaga Lake

Honeywell

Note:
2009 Onondaga County
12-inch Resolution
Natural Color Orthoimagery



0 0.35 0.7
Miles

**U.S. Government Locations
Syracuse NY**

Government Ownership and Operation in Syracuse

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Honeywell

- Significant Contributors:
 - Aircooled Motors
 - General Electric Co
 - General Motors (Brown-Lipe)
 - Hancock Airfield
 - Kilian Manufacturing
 - Lipe-Rollway Corp
 - New Process Gear
 - Oberdorfer Foundries
- Additional Contributors:
 - Allen Tool Corp
 - Amboy City AAF Airfield
 - Beaver Machine and Die Casting
 - Bradley CC and Son, Inc
 - Bristol Myers Co./Cheplin
 - Doyle Machine & Tool Corp
 - Easy Washing Machine Corp
 - Engleberg Huller Co. Inc
 - Flexo Wire Co
 - Grandinette D. MFG Co
 - National Aniline Defense Corp
 - Onondaga Pottery
 - Precision Castings
 - Remington-Rand Corp
 - Smith L.C. and Corona Typewriters
 - Sulzle, B.G, Machine & Electric Co.
 - Unit Electric Tool Co
 - U.S. Hoffman Machinery

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Aircooled Motors – 1942-1946

Honeywell

- Facility used to manufacture helicopter engines for the Navy
- Navy operations required the addition of semi-permanent buildings to the existing plant
- Navy owned equipment and additional land (6.6 acres)
- Under normal conditions there were 500 employees; facility employee increased to 1,500 during World War II
- During the height of operations in June 1944: 267 engines produced per month
- Site consists of approximately 10 acres
- Plant operated 6 days per week

References:

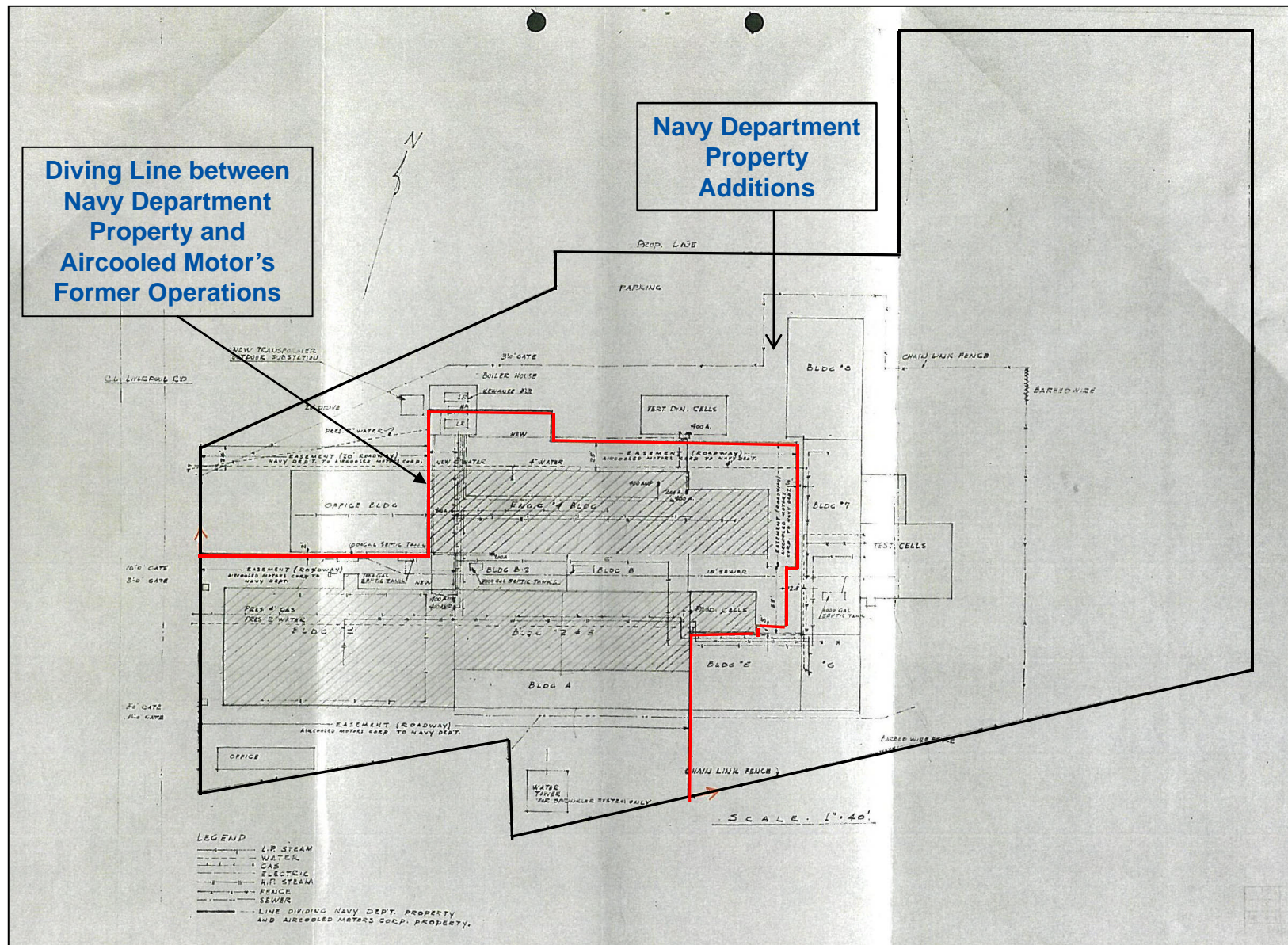
1 - Executive Office of the President, Bureau of the Budget-War Projects Unit, Abstract of Production Report, Feb 1, 1944

2 - Executive Office of the President, Bureau of the Budget-War Projects Unit, Abstract of Production Report, July 21, 1944

Aircooled Motors – 1942-1946

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Honeywell



Aircooled Motors - Waste Generation

Honeywell

- Raw materials used in production process:
 - Castings
 - ◆ Aluminum
 - ◆ Magnesium
 - ◆ Semi-steel
 - Forgings
 - ◆ Steel
 - ◆ Aluminum
- Waste producing processes included:
 - Machine Wastes
 - ◆ Ferrous and non-ferrous chips, and a range of Organics
 - Metal Cleaning Wastes
 - Plating Wastes
 - ◆ Copper and cadmium, chromic acid

References:

1- Executive Office of the President, Bureau of the Budget-
War Projects Unit, Feb 1, 1944

2- NYSDOH, letter, May 28, 1956

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Aircooled Motors - Nexus to Onondaga Lake

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Honeywell

- Post-war Evidence Indicates Wastes Discharged into Bloody Brook
 - “Stream flows under that plant in a concrete conduit and receives ... wastes from plating operations and oil wastes.”¹
 - Wastes from plating operations, cleaning operations and testing cell cleaning “are discharged without treatment through three 4-inch outlets into the conduit carrying the stream beneath the plant.”²
 - Facility practice “to dispose of worn-out cutting fluids, both water-soluble and non-water-soluble oils, solvents used in cleaning, etc., into an outside sump that drained directly into the first tributary of Bloody Creek.”³
- Discharges Directly Impacted the Lake
 - “Sludge deposits and oil slick are visible for about 300 yards below the downstream end of the culvert...”¹
 - “In 1950-51, the branch leading by the Air-Cooled Motors plant was found to be sterile and was carrying 1.5 parts per million of copper.”¹

References:

1- Water Pollution Control Board and NYS Department of Health, 1951, The Onondaga Lake Drainage Basin.

2- New York State Water Pollution Control Board, Comprehensive Plan for Abatement, 1953.

3-Aircooled Motors, Inc., Letter, Dear Mr. Grossman, May 28, 1956.

Aircooled Motors – Discharge Calculations

Honeywell

- Site specific flow data taken from 1969 Weston Report (Franklin Engine Company Data)
 - In 1969, Franklin Engine Co. only had 155 employees (less than 1/3 of 1945 total)
- Concentration data taken from EPA Development Documents:
 - *Development Document For the Final Effluent Limitations Guidelines and Standards for the Metal Products and Machinery Point Source Category*
- Period of Government Involvement: 1942-1946

Processes effluent CPOI	EPA Development Document average effluent concentration (mg/L)	Years of War Operation	Estimated mass discharged from facility (Kg/L * LPY * Y)	Percent of mass that reaches Onondaga Lake	Mass Discharged To Onondaga Lake (Kg)
Cadmium	1.23	4	77	70%	54
Chromium	11.70	4	737	70%	516
Copper	6.4	4	403	70%	282
Nickel	2.24	4	141	70%	99
Zinc	27.2	4	1,713	70%	1199
Lead	91.9	4	5,789	70%	4052
Silver	0.138	4	9	70%	6
Selenium	0.087	4	5	70%	4
Mercury	0.001	4	0	70%	0
TOTAL MASS DISCHARGED					6,212

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Government Ownership and Operation in Syracuse

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Honeywell

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 - U.S. Hoffman Machinery

General Electric – 1942-1947

Honeywell

- General Electric Facilities on Thompson Road owned by the United States Defense Plant Corporation
- Four separate Plancors on Thompson Road (three of which the United States constructed)
 - Operations included a Turbine-Generator Plant, a Radio Equipment Plant, and a Boiler House
 - Production included metal finishing; plating; treating metallic parts; and radar, sonar and turbine operations
- Government Significantly Increased Production:
 - In 1942, the Thompson Road facility sought a permit to increase sewage effluents from 400,000 gpd to 810,000 gpd, and connect waste lines to the Ley Creek Water Treatment Plant
 - In 1944, the Thompson facility sought a permit to discharge 200 gallons per minute of waste water
- Facility operated 24/7

General Electric – Waste Generation

Honeywell

- Numerous constituents of concern associated with onsite production, including:

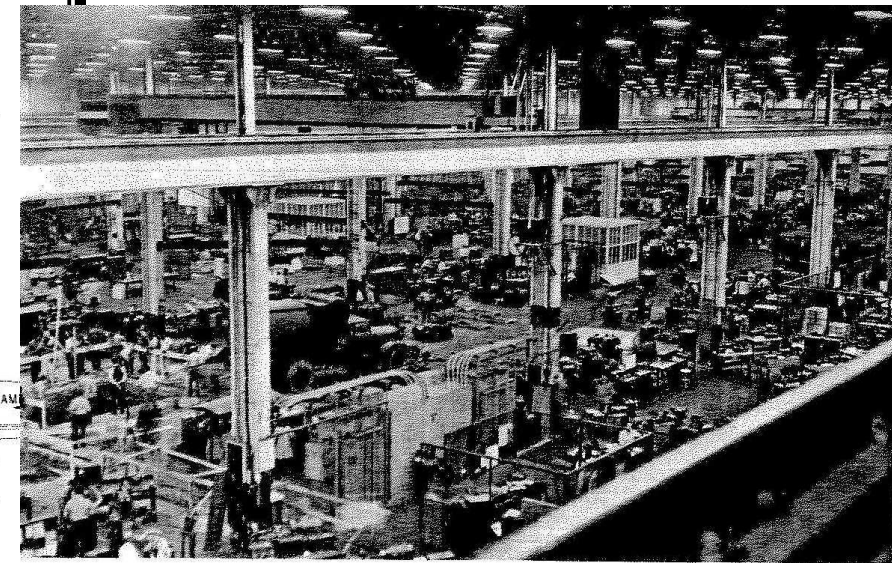
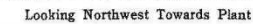
- Chromium (Hexavalent Chromium & Chromic acid are H₂O soluble)
- Cadmium
- Copper
- Zinc
- Cyanide

List of Treating Baths From Present Thompson Road Turbine and Radio Plants.

	<u>Gallons</u>
1. Borax	400✓
2. Muriatic Acid	800✓
3. Nitric Acid	80
4. Alk. Cleaner	400
5. Borax	400✓
6. Muriatic Acid	800✓
7. Nitric Acid	30
8. Nitric Acid	30
9. Alkaline Cleaner	800✓
10. Bonderizinc	265
11. Chromic Acid	265
12. Iridite	30
13. Iridite	30
14. Dulite	100
15. Alk. Cleaner	140
16. Cronak	140
17. Nitric Acid	140
18. Nitric Acid	140
19. Cadmium Cyanide	800✓
20. Zinc Cyanide	500
21. Copper Cyanide	500
22. Sodium Cyanide	400
23. Nitric Acid	30
24. Nitric Acid	30
25. Muriatic Acid	30
26. Alkaline Cleaner	800✓
27. Caustic Soda	800✓

References:

1944 Engineering Report ,Disposal of Process Water Wastes from the Thompson Road Plant



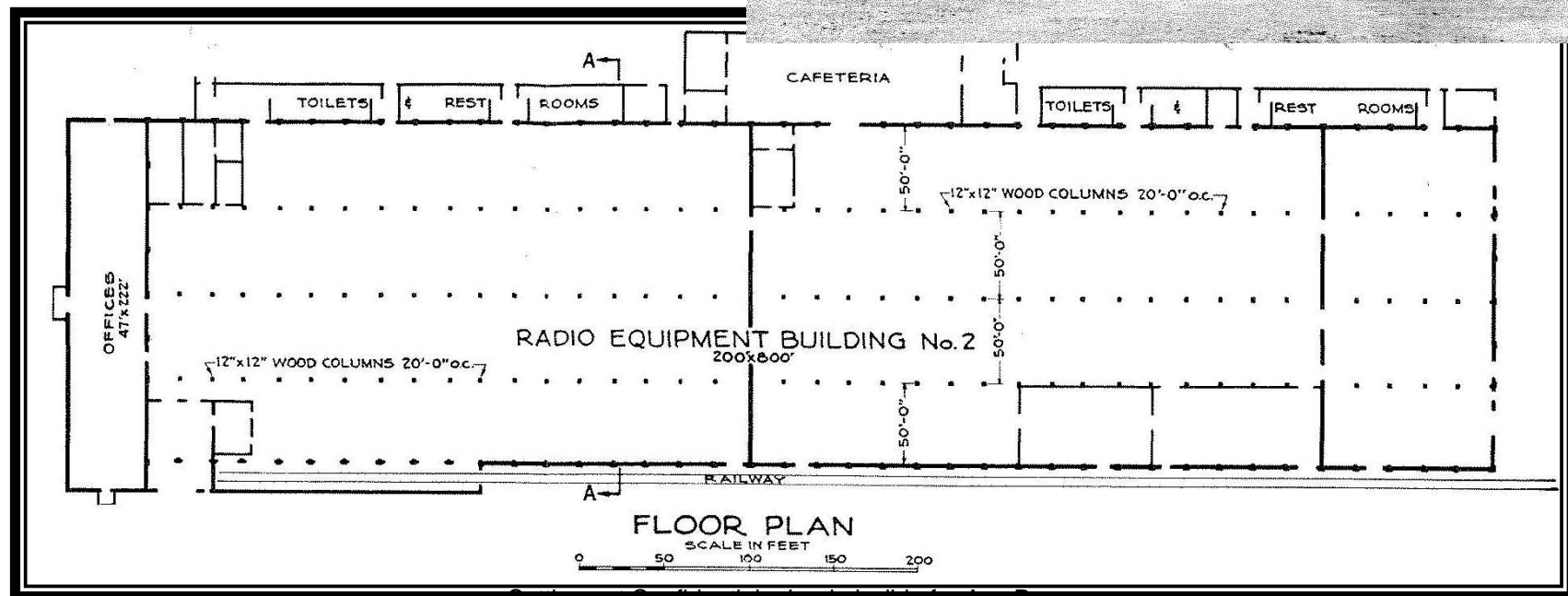
Interior Manufacturing Building

Plancor 789

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Honeywell

- Construction of:
 - Radio Equipment Building No. 2
 - ◆ Includes Electric control and acetylene storage
 - Drum and Carbon building



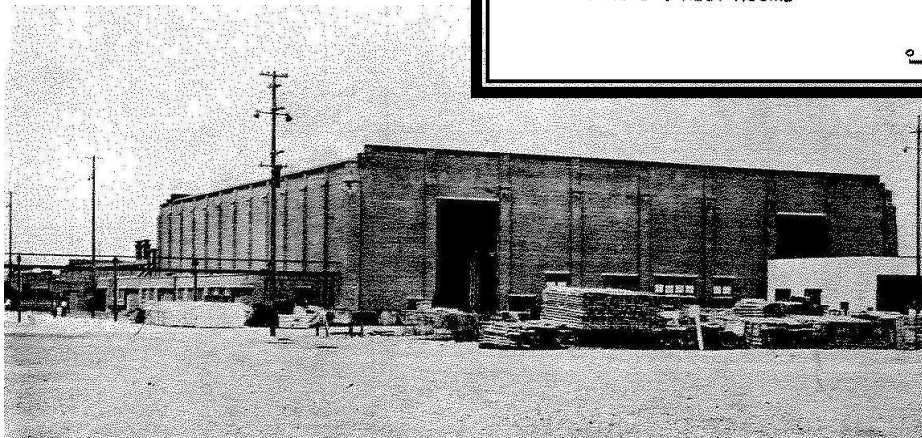
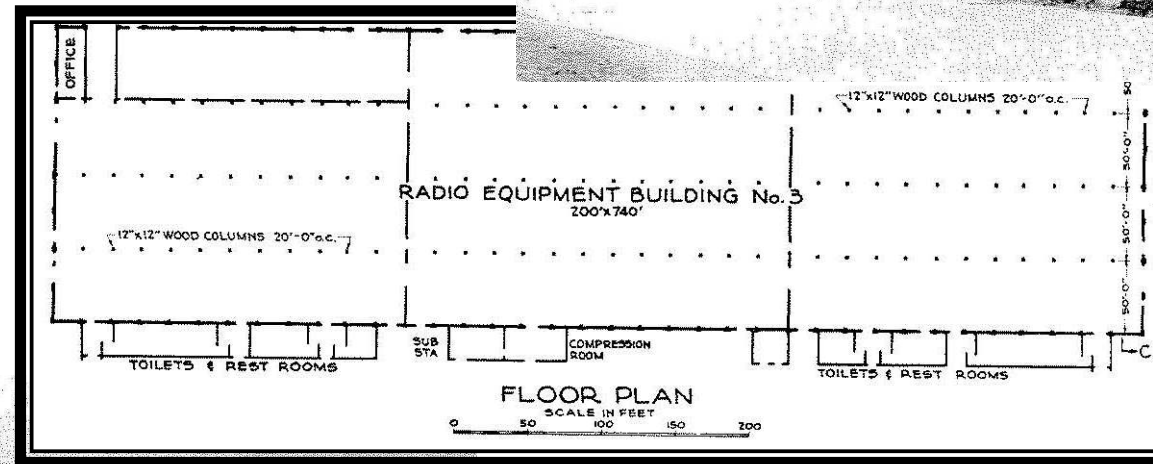
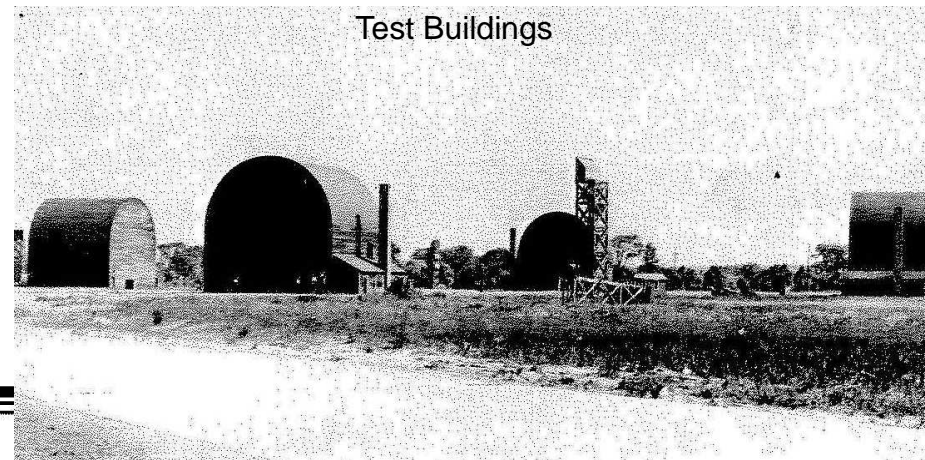
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Plancor 1263

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Honeywell

- Construction of:
 - Radio Equipment Building No. 3
 - Garage
 - Testing Buildings



Building No. 3

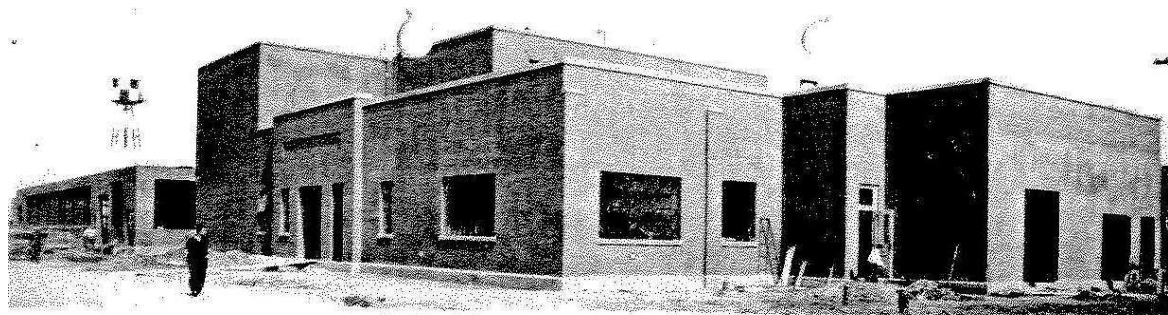
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Plancor 2108

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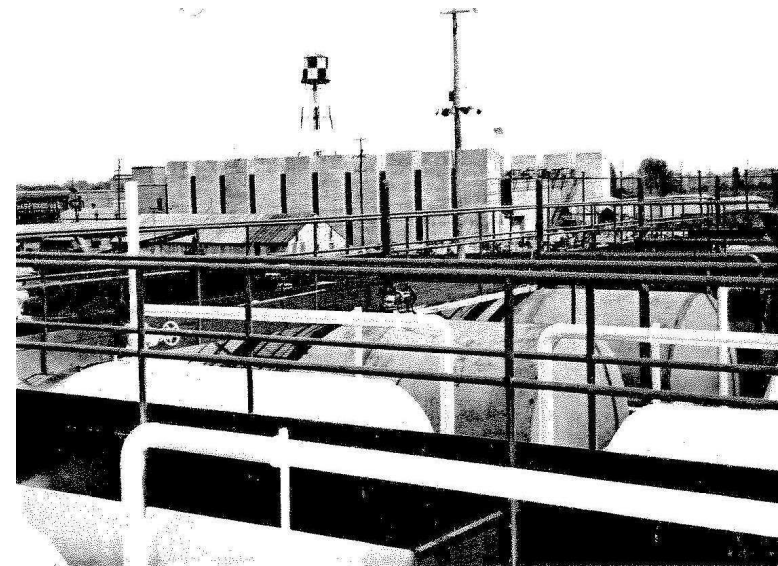
Honeywell

- Construction of:
 - Test Building
 - Laboratory
 - Impregnating Building
 - Magnesium Storage
 - Pump House
 - Tank Farm



LABORATORY AND IMPREGNATION BUILDING

Tank Farm



VIEW OF TEST BLDG., TANK FARM IN FOREGROUND

General Electric – Nexus to Onondaga Lake

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Honeywell

- “At the present time the process water wastes from the plant located at Thompson Road are discharged into a storm sewer within the plant property and are thence conveyed into Ley Creek.”
- “It is proposed to remove all wastes from the storm sewer system and to discharge them into new lines tributary to a properly designed process water waste treatment plant, with the effluent from this plant discharged into a sanitary sewer tributary to the 12” sewer on Thompson Road.”

In the production of this materiel, the washing, cleaning, plating and liquid treating of metallic parts will of necessity be increased considerably over the present installation. The disposal of the process water wastes from these operations is a problem of major concern in the successful operation of this plant.

References:

1- General Electric Company, Engineering Report of the Disposal of Process Water Wastes from the Thompson Road Plant (1944)

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General Electric – Additional Facilities

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Honeywell

- In addition to the Thompson Rd. facility, additional facilities in the Syracuse area owned by the United States were operated by GE, including:
 - **Plancor 788**
 - Located on Wolf Street
 - 151,900ft² facility used for the manufacture and furnishing of radio equipment
 - Likely direct discharge into Ley Creek

General Electric – Plancor 788

DRAFT

Honeywell



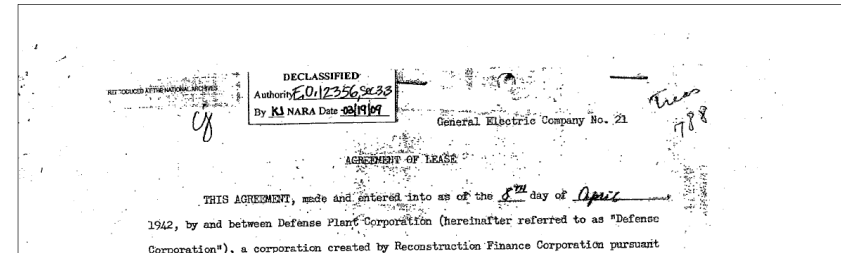
General Electric – Plancor 788

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Honeywell

April 8, 1942:

Agreement of Lease with General Electric, to operate the facility owned by the United States, and to operate equipment purchased by the United States



WHEREAS, the War Department has advised that the establishment of an additional plant for the manufacture and furnishing of radio equipment at or near Syracuse, New York, having a total floor area of approximately one hundred fifty-one thousand nine hundred (151,900) square feet and the acquisition of additional machinery and equipment for use in said plant and in Lessee's existing plant at Schenectady, New York (such machinery and equipment, exclusive of items commonly classified as expendable items being hereinafter sometimes called the "Machinery") are in its opinion necessary in the interest of national defense; and

radio equipment in accordance with said contract or contracts; and

WHEREAS, Lessee represents that in the price charged the Government or any supplier for the Government for the manufacture and furnishing of such radio equipment there have been eliminated all charges (including amortization and depreciation),

NARA-CP
RG 234
PI-173/Entry 147
Box 55, F: Plancor 788

General Electric – Plancor 788

Honeywell

March 27, 1950:

Report of Excess Property from the RFC, seeking to dispose of the buildings and equipment owned by the United States associated with Plancor 788

STANDARD FORM No. 50 GENERAL SERVICES ADMINISTRATION REPORT OF EXCESS REAL PROPERTY		1. DATE REPORTED MAR 27 1950	2. HOLDING AGENCY NUMBER Plancor 788 R-44-401
3. TO: GENERAL SERVICES ADMINISTRATION	ADDRESS Washington 25, D. C.		
4. NAME OF HOLDING AGENCY FROM: Reconstruction Finance Corporation	ADDRESS 811 Vermont Avenue, Washington 25, D. C.		
5. NAME OF REPRESENTATIVE TO BE CONTACTED F. Gale, Jr., Agency Manager	ADDRESS Reconstruction Finance Corporation 44 Pine St., New York 5, N. Y.		
6. NAME OF CUSTODIAN New York Loan Agency, RFC	ADDRESS 44 Pine St., New York 5, N. Y.		
7. PROPERTY IDENTIFICATION			

21. REMARKS: Original building, built about 1900, with brick walls, concrete roof on steel trusses, was a car barn. In 1942 RFC purchased this building, altered it and extended it 120 feet with brick walls, laminated wood roof deck on wood trusses, to make the property suitable for leasing to General Electric Co. for the manufacture and testing of electronic apparatus. The adjoining parcel of land was also purchased and graded and fenced for use as an employee parking lot. The right of way known as Willumae Drive separated the plant from the parking lot. This right of way was closed by the City of Syracuse for the duration of the war and remains closed at present. The property is located in an industrial district of Syracuse 2 1/2 miles from the center of the city.

72. REPORT AUTHORIZED BY HOLDING AGENCY

UNIDENTIFIED FEDERAL AGENCIES KNOWN TO HOLDING AGENCIES Previous interest (1945) by Army for drilling reserve troops. See attachment.	
21. REMARKS: Original building, built about 1900, with brick walls, concrete roof on steel trusses, was a car barn. In 1942 RFC purchased this building, altered it and extended it 120 feet with brick walls, laminated wood roof deck on wood trusses, to make the property suitable for leasing to General Electric Co. for the manufacture and testing of electronic apparatus. The adjoining parcel of land was also purchased and graded and fenced for use as an employee parking lot. The right of way known as Willumae Drive separated the plant from the parking lot. This right of way was closed by the City of Syracuse for the duration of the war and remains closed at present. The property is located in an industrial district of Syracuse 2 1/2 miles from the center of the city.	
72. REPORT AUTHORIZED BY HOLDING AGENCY	
CHESTER S. SHADE, Manager Name Office of War Activity Identification Title	Signature March 24, 1950 Date

4

General Electric – Discharge Calculations

Honeywell

- Estimated discharge limited to discharges from Thompson Rd.
- Site specific flow data taken from 1944 permit application
- Concentration data taken from EPA Development Documents:
 - *Development Document For the Final Effluent Limitations Guidelines and Standards for the Metal Products and Machinery Point Source Category*
- Period of Government Involvement: 1942 -1947

Site Specific Metal Finishing Processes Effluent CPOI	Site Specific Average Effluent Concentration (mg/L)	Years of War Operation	Estimated mass discharge from Thompson Road Facility (Kg/L * LPY * Y)	Percent Pass through	Mass Discharged To Onondaga Lake (Kg)
Cadmium	1.230	5	1,743	70.0%	1,220
Chromium	11.700	5	16,582	70.0%	11,607
Copper	6.400	5	9,070	70.0%	6,349
Nickel	2.240	5	3,175	70.0%	2,222
Zinc	27.200	5	38,549	70.0%	26,985
Lead	91.900	5	130,246	70.0%	91,172
Silver	0.138	5	196	70.0%	137
Selenium	0.087	5	123	70.0%	86
Mercury	0.001	5	1	70.0%	1
TOTAL MASS DISCHARGED					139,780

Government Ownership and Operation in Syracuse

DRAFT

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 - Unit Electric Tool Co
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General Motors – 1941-1946

Honeywell

- Machine gun plant located on 718 Marcellus Street – Plancor 2046
- Existing plant was altered to produce of .30 caliber machine guns for mounting on aircrafts, and related ball bearing parts
- DPC allotted \$2,550,000 for plant equipment
- June 17, 1944 DPC entered into a lease in order to expand the facility to accommodate the production of ball bearing parts
- Approximately 100,000 ft² of existing plant for government work
- “The Lessee moved their own peacetime machines out of building in order to make room for the DPC owned machines purchased under this Plancor”
- Assembly of machine guns was designed for the production of 1,400,000 parts per month
- 1943: Production of machine guns 24 hours per day

References:

- 1 – Report of N.S. Flook on Survey of Brown-Lipe-Chapin Division of General Motors Corp, Syracuse NY, July 17, 1941
- 2 – Defense Plant Corporation, An Instrumentality of U.S. Government, Engineers Final Report, 1944
- 3 – Defense Plant Corporation, Letter to W.L. Drager Regarding Plancor 2046, at Part C
- 3- NYSEDEC, 104e Site Summary Report
- 4-Syracuse Herald American- December 29, 1940
- 5- Syracuse Herald Journal- June 5, 1943

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General Motors – 1941-1946

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REPRODUCED AT THE NATIONAL ARCHIVES

EXECUTIVE OFFICE OF THE PRESIDENT
Bureau of the Budget--Defense Projects Unit

ABSTRACT OF FIELD REPORT

IDENTIFICATION

Construction Agency War Dept.-Ordnance
Res. Const. Chief 1st Lt. R. T. Friday
(Major J. J. Brown, Ord., Detroit, (Ordnance)
Date Visited 7-15-41 Mich., in charge
Examiner Flock
Date of Report 7-17-41
Type of Contract Fixed-fee (\$1.00)
Remarks Expenditure of \$21,250,940 authorized for 4 Gen. Motors plants for machine gun production. \$2,550,000 assigned to this plant, 100,000 sq. ft. of existing bldg. to be utilized.

DPU File 130-0534
Location-Town 872
-Post 280
Type Machine gun
Description Machine tools for production of .30 cal. aircraft machine guns.

Location-Town Syracuse, N. Y.
-Post BROWN-LIFE-SHAFFER DIV. OF
Type Machine gun plant (GENERAL MOTORS)
Description Machine tools for production of .30 cal. aircraft machine guns.

Revised Cost-Estimated \$2,550,000
Authorized

PHYSICAL STATUS

Time Schedule
Date Started 9-15-40
Completion-Scheduled 2-15-41
-Probable 2-15-41
Percent Complete 65%
Present General Progress Good

Men Working
Contractor Does
Force Account not
WPA not
Engineer apply
Government Agency
Total

MATTERS FOR ATTENTION OF WASHINGTON OFFICES

Organization and Control:
a. The contract with the General Motors Corporation of Detroit provides for the purchase and installation, on a cost-plus-fixed-fee (\$1.00) basis, of machinery and equipment for the manufacture of .30 and .50 caliber machine guns at a fixed-unit-price. The project is distributed among four of the company's plants located at Flint, Michigan; Dayton, Ohio; Saginaw, Michigan;

Organization and Controls:

a. The contract with the General Motors Corporation of Detroit provides for the purchase and installation, on a cost-plus-fixed-fee (\$1.00) basis, of machinery and equipment for the manufacture of .30 and .50 caliber machine guns at a fixed-unit-price. The project is distributed among four of the company's plants located in Flint, Michigan; Dayton, Ohio; Saginaw, Michigan; and Syracuse, New York.

General Motors – 1941-1946

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Honeywell

DFU 130.053
July 17, 1941

REPORT OF N. S. FLOOK ON SURVEY OF BROWN-LIPE-CHAPIN DIVISION OF
GENERAL MOTORS CORPORATION, SYRACUSE, NEW YORK, VISITED
JULY 15, 1941.

General Description

(a) Original Project.

The original project, as described in contract No. W-ORD-474, approved September 14, 1940, with the General Motors Corporation of Detroit, Michigan, provides for the purchase and installation, on a cost-plus-a-fixed-fee (\$1.00) basis, of machinery and equipment in contractor's plants, for the manufacture of machine guns of .30 and .50 caliber, on a fixed unit-price basis. The project is spread among four plants as follows: Flint, Michigan; Dayton, Ohio; Saginaw, Michigan; and Syracuse, New York. The estimated cost of equipment for the four plants, as set up in the original contract, is \$20,250,940. No allocation to the separate plants is stated. The contractor is to supply a total of 71,225 machine guns at a total cost of \$61,398,872.19. The production rate per annum is scheduled as follows:

50,000	.50 caliber aircraft machine guns
10,000	.30 caliber aircraft machine guns
20,000	.30 caliber 1919-A4 machine guns

The Syracuse plant is being cooled for the production of .30 caliber machine guns for fixed mounting in aircraft. Approximately 100,000 square feet of factory space in the two upper floors of the existing plant is being arranged for the work and \$2,550,000 appears to have been allocated to this plant. Approximately 1,000 machine tools are required and of these some 270 have been provided from the US arsenals at Rock Island, Illinois, and Springfield, Massachusetts. The cost of these is not included in the \$2,550,000.

(b) Changes in Original Project.

The original project has been changed on June 19, 1941, to provide for the production of a supply of water-cooled .50 caliber M-2 machine guns and this adds \$1,000,000 to the original estimate of the cost of equipping the plants. This change, however, appears not to affect the Syracuse plant.

(c) Directory.

The project is in charge of Major J. J. Breen, Ordnance, 7-155 General Motors Building, Detroit, Michigan, who is represented at the plant by R. T. Freiday, 1st Lieutenant, Ordnance. The plant is located at Ontario and Marcellus Streets, in Syracuse-telephone 2-2331.

Syracuse Herald American- December 29, 1940

Brown - Lipe - Chapin to
Test Machine Guns on
Plant Roof

OTHERS TO SHARE

Boom Times for Syra-
cuse in 1941 Predicted by
Secretary Norton



“The contract provided that, in addition to the \$63,398,872 order for the guns, the Government was to put up \$20,000,000 for machinery to make the guns, the machinery to be purchased and installed by General Motors, with title to it remaining in the Government.”

General Motors – Discharge Calculations

Honeywell

- Site specific flow data taken from Department of Health Document (1959)
- Concentration data taken from EPA Development Documents:
 - *EPA Development Document For the Final Effluent Limitations Guidelines and Standards for the Metal Products and Machinery Point Source Category*
- Period of Government involvement: 1941-1946

Processes effluent CPOI	Effluent concentration (mg/L)	Total Years of Operation 1941-1946	Estimated mass discharge from Facility (Kg/L * LPY * Y)	Percent Pass Through to Onondaga Lake	Mass Discharged To Onondaga Lake (Kg)
Cadmium	1.23	5	8,966	70.0%	6,276
Chromium	11.7	5	85,289	70.0%	59,703
Copper	6.4	5	46,654	70.0%	32,658
Nickel	2.24	5	16,329	70.0%	11,430
Zinc	27.2	5	198,279	70.0%	138,796
Lead	91.9	5	669,922	70.0%	468,945
Silver	0.138	5	1,006	70.0%	704
Selenium	0.087	5	634	70.0%	444
Mercury	0.001	5	7	70.0%	5

TOTAL MASS DISCHARGED
718,961

Government Ownership and Operation in Syracuse

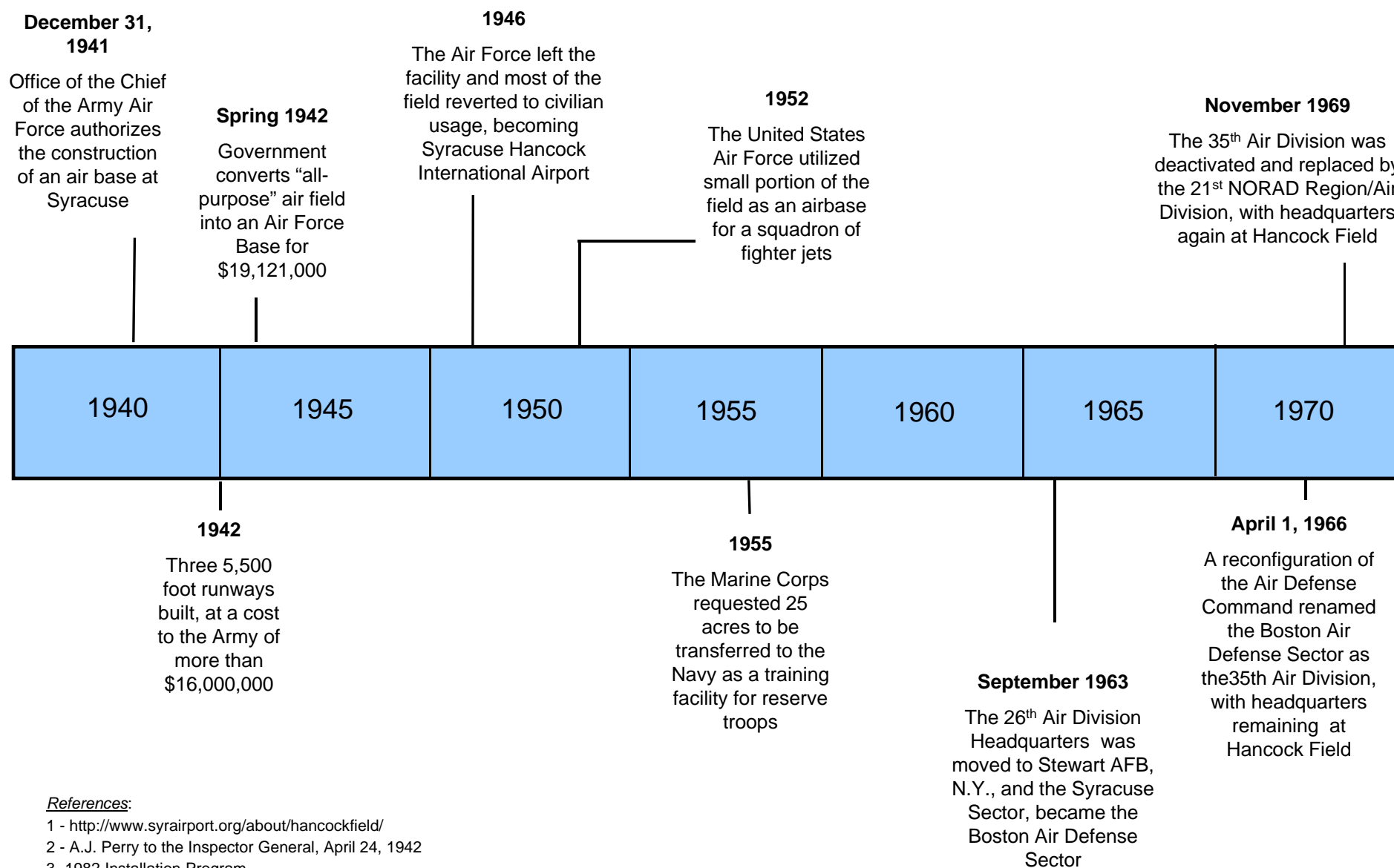
DRAFT

Honeywell

- Significant Contributors:
 - Aircooled Motors
 - General Electric Co
 - General Motors (Brown-Lipe)
 - **Hancock Airfield**
 - Kilian Manufacturing
 - Lipe-Rollway Corp
 - New Process Gear
 - Oberdorfer Foundries
- Additional Contributors:
 - Allen Tool Corp
 - Amboy City AAF Airfield
 - Beaver Machine and Die Casting
 - Bradley CC and Son, Inc
 - Bristol Myers Co./Cheplin
 - Doyle Machine & Tool Corp
 - Easy Washing Machine Corp
 - Engleberg Huller Co. Inc
 - Flexo Wire Co
 - Grandinette D. MFG Co
 - National Aniline Defense Corp
 - Onondaga Pottery
 - Precision Castings
 - Remington-Rand Corp
 - Smith L.C. and Corona Typewriters
 - Sulzle, B.G, Machine & Electric Co.
 - Unit Electric Tool Co
 - U.S. Hoffman Machinery

Hancock Airfield – 1941-Present

Honeywell



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Hancock Airfield – 1941-Present

Honeywell

- Hancock Airfield was a military defense base, originally known as Syracuse Army Air Base, built in 1942 as a staging area for warplanes bound for England
- Project located on a 3700-acre tract of Government purchased land
- Government owned base included housing, parking, three runways, taxiways, shops, warehouses, hospital facilities, and a gasoline distribution system
- New York Air National Guard operations at the facility include: small arms training, equipment maintenance, fuel storage, oil/water separation from floor and vehicle washing, and storage of hazardous materials
 - Shop floor drain discharged directly to the environment without an oil/water separator (AMSA #9 facility)
- Base also used to assemble and test B-24 aircrafts

References:

1 – Defense Project Agency, Syracuse All-Purpose air Station, June 14, 1942

2 – Chief, Bureau of Yards and Docks, U.S. Marine Corps Reserve Training Center, January 25, 1957

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Hancock Airfield - Waste Generation

Honeywell

- Associated wastes:
 - Waste oil from car maintenance
 - PCB oil from transformers
 - Pesticides from grounds maintenance
 - Solvents from auto and machine shops
- Fire Training Area Discharges 1948 – 1985

Processes effluent CPOI	Surface water concentration (mg/L)
Benzo(a)pyrene	0.047
Benzo(b)fluoranthene	0.081
Fluoranthene	0.1
Phenanthrene	0.062
Pyrene	0.18

- Known Releases

Material	Dates	Environmental Receptor
Ethylene Glycol, Propylene Glycol, Potassium Acetate	1948-1996	Surface runoff to Ley Creek
Neutralized Battery Acid	1948-1985	Discharged to sanitary sewer
JP-4	1990	Soil, groundwater
Malathion, Petroleum	1989	Soil, groundwater

References:

1- NY ANG, Final Response to the United States Environmental Protection Agency's Request For Information, Appendix C Through O, 07 June 1996

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Hancock Airfield – Known Site Contamination^{DRAFT}

Honeywell

- Soil:
 - Contaminated with pesticides, PAHs, lead (120 ppm), TPHs (2,300 ppm), JP fuel and PCBs (240 ppm)
- Sediment:
 - Onsite ditches sampled above NYSDEC sediment criteria lowest effect levels for arsenic, lead, copper and cadmium
 - North Branch of Ley Creek contained elevated levels of benzo(b)fluoranthene (69ug/kg), benzo(k)fluoranthene (52ug/kg), benzo(a)pyrene(46ug/kg)
- Surface Water:
 - North Branch of Ley Creek receives untreated discharges from 6 outfalls
 - Samples adjacent to Fire Training Area contained PAHs
- Groundwater:
 - Samples of Fire Training Area contained lead, methylene chloride, TPH and xylenes
 - Petroleum, Oil & Lubricant Area contained PCB Aroclor 126 and BTEX compounds
 - ♦ JP fuel discovered at concentrations of 3,020 ppb
- County Sewer:
 - From 1945 until 1985, neutralized battery acid was discharged

References:

1 – NYSDEC-Division of Environmental Remediation, Site Summary Report, June 2000

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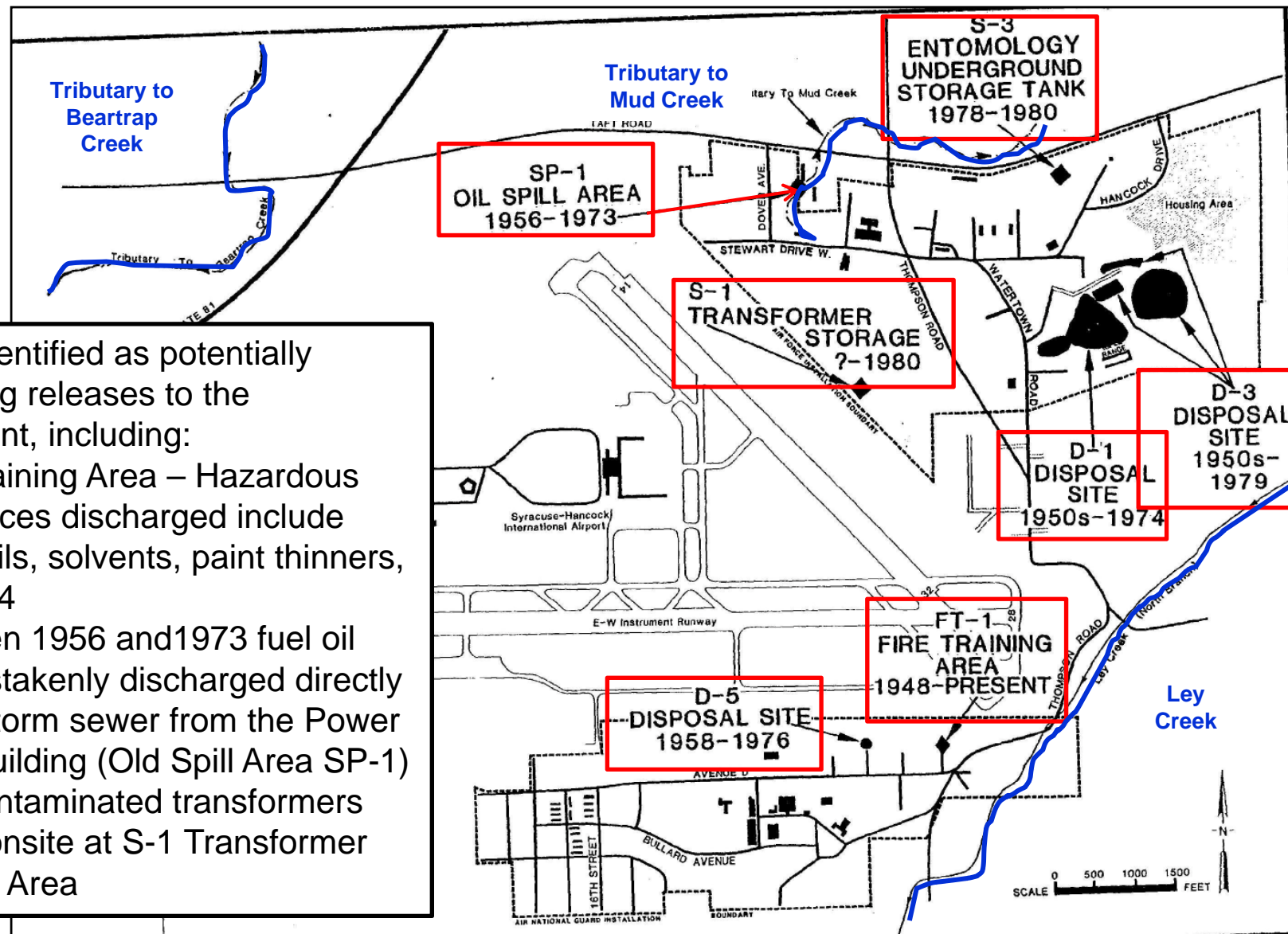
Hancock Airfield – Nexus to Onondaga Lake

DRAFT

Honeywell

15 sites identified as potentially contributing releases to the environment, including:

- Fire Training Area – Hazardous substances discharged include waste oils, solvents, paint thinners, and JP-4
- Between 1956 and 1973 fuel oil was mistakenly discharged directly to the storm sewer from the Power Plant Building (Old Spill Area SP-1)
- PCB contaminated transformers stored onsite at S-1 Transformer Storage Area



References:

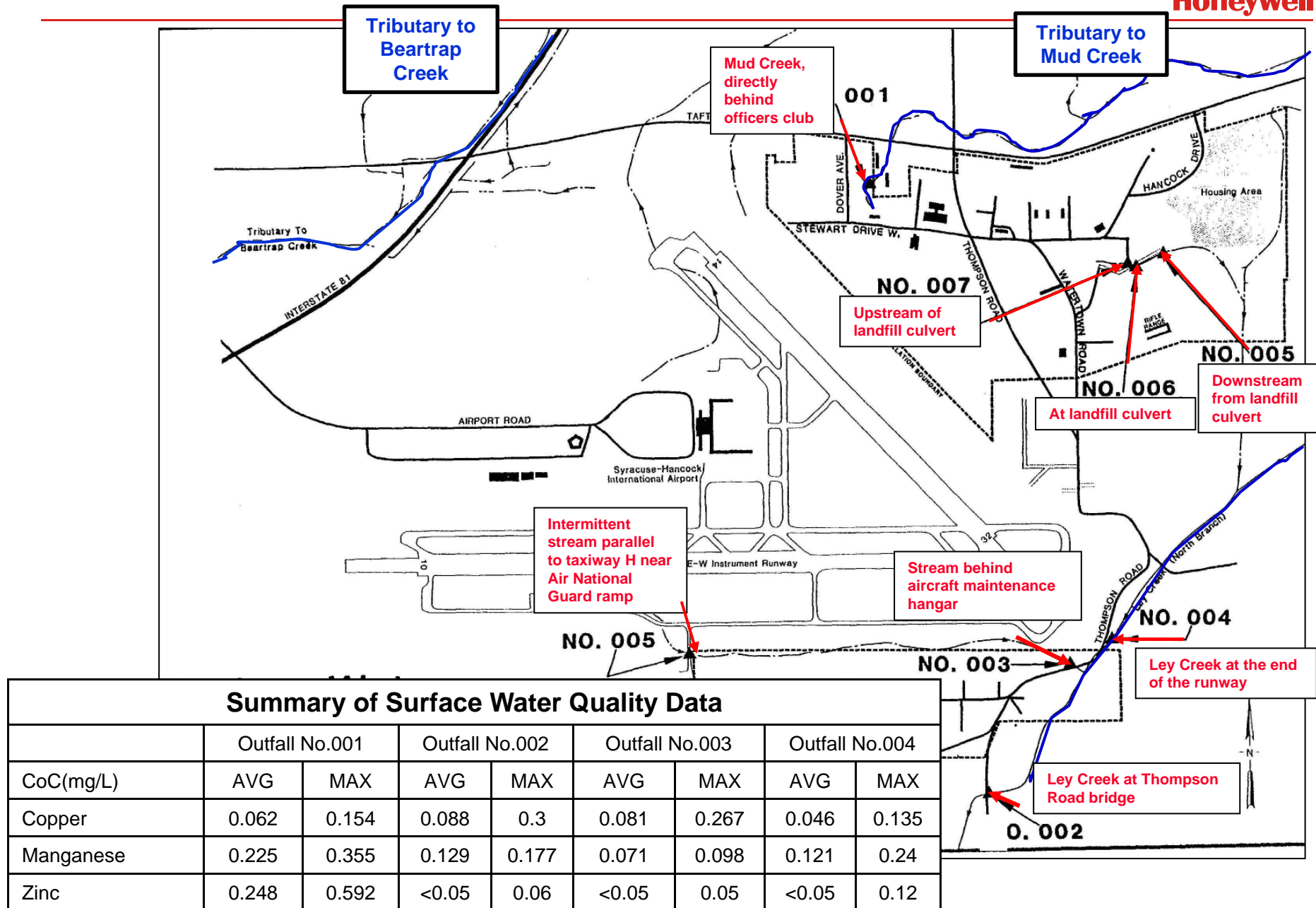
1 – NYSDEC-Division of Environmental Remediation, Site Summary Report, June 2000

Settlement Confidential – Inadmissible for Any Purpose

Hancock Airfield – Nexus to Onondaga Lake

DRAFT

Honeywell



Government Ownership and Operation in Syracuse

DRAFT

Honeywell

- Significant Contributors:
 - Aircooled Motors
 - General Electric Co
 - General Motors (Brown-Lipe)
 - Hancock Airfield
 - **Kilian Manufacturing**
 - Lipe Rollway Corp
 - New Process Gear
 - Oberdorfer Foundries
- Additional Contributors:
 - Allen Tool Corp
 - Amboy City AAF Airfield
 - Beaver Machine and Die Casting
 - Bradley CC and Son, Inc
 - Bristol Myers Co./Cheplin
 - Doyle Machine & Tool Corp
 - Easy Washing Machine Corp
 - Engleberg Huller Co. Inc
 - Flexo Wire Co
 - Grandinette D. MFG Co
 - National Aniline Defense Corp
 - Onondaga Pottery
 - Precision Castings
 - Remington-Rand Corp
 - Smith L.C. and Corona Typewriters
 - Sulzle, B.G, Machine & Electric Co.
 - Unit Electric Tool Co
 - U.S. Hoffman Machinery

Kilian – 1943-1945

Honeywell

- December 1942: War Department's Army Forces contracted Kilian to produce 1 million aircraft control bearings per month
- January 25, 1943: The DPC furnished equipment and constructed facilities for production under Plancor 1632, and signed an Agreement of Lease with Kilian for use of those facilities
- DPC expended \$371,830.45 on plant facilities and equipment
- The plant consisted of two main buildings:
 - 737 W. Genesee St – remodeled by the DPC
 - 1728-36 Burnet Avenue – DPC supplied equipment, manufacturing space for heat treating equipment
- Production of aircraft control bearings and air frame bearings
- Production of approximately 1,000,000 bearings per month
- Plancor facilities were disposed of through “sales, transfers, and plant clearances,” after roughly two years of operations.

References:

1 –Appendix A-Kilian Manufacturing Corporation, Amended 16 December 1942

2 – Agreement of Lease, 25 January 1943

3 – Comparative Tabulation of DPC-Plancor No. 1632, 30 November 1944

4 – DPC-Engineer's Final Report, Plancor 1632, 1944

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Kilian – 1943-1945

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Honeywell

APPENDIX A
DEFENSE PLANT CORPORATION
Emergency Facilities
KILIAN MANUFACTURING CORPORATION
1728-36 Burnet Avenue
Syracuse, New York
1632

PRS PROJECT
393 A
PRELIM
Amended
December 16, 1942

NATURE OF FACILITIES:

BUILDING "A". To acquire by (rental) lease for duration of was and eight months thereafter, one story brick and steel building, concrete floor, sprinklered building 55' x 240' on plot 70' by 270', heated by coal steam plant in basement 20' x 40', mezzanine floor 24' x 55'. Proposed leasing under option.

BUILDING "B". To convert space in brick, concrete sprinklered building owned by applicant to provide necessary manufacturing space for proposed heat treating equipment

LOCATION:

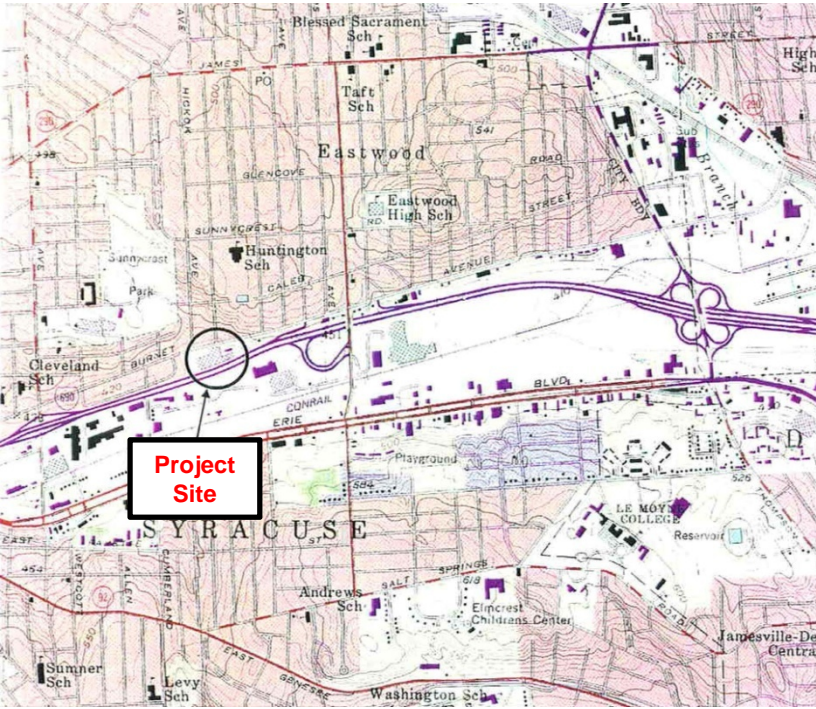
BUILDING "A". 737 West Genesee Street, Syracuse, New York

BUILDING "B". 1728-36 Burnet Avenue, Syracuse, New York

FOR THE PRODUCTION OF: Aircraft control bearings - production approximately 1,000,000 bearings per month

Schedule	Item	Estimated Cost	
Schedule I <u>LAND AND LAND IMPROVEMENTS</u>		None	
	Schedule II <u>BUILDINGS, ETC.</u> (Depreciation Rate - 5%)		
		(a) Buildings	None
		(b) Building Installations (Not Mechanical)	\$ 30,396.57
		(c) Leasehold Improvements	None
Schedule III <u>MACHINERY, EQUIPMENT, ETC.</u> (Depreciation Rate - 12%)			
	(a) Machinery and Equipment	408,757.75	
	(b) Building Installations (Mechanical)	414,372.56	
	(c) Laboratory and Testing Equipment	None	
	(d) Furniture and Fixtures	5,566.50	
Total		\$ 418,200.61	
GRAND TOTAL		\$ 450,456.19	

APPROVED DEC. 22, 1942
INDUSTRIAL PLANNING SECTION
MATERIAL DIVISION
AIR CORPS, U. S. ARMY



Building construction
and machinery
purchased for war
production

Dismissible for Any Purpose

Kilian – 1943-1945

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Honeywell

PRODUCED AT THE NATIONAL ARCHIVES

63

Kilian Manufacturing Corp.
Plancor 1632.

AGREEMENT OF LEASE

THIS AGREEMENT, made and entered into as of the 25th day of January, 1943, by and between Defense Plant Corporation (hereinafter referred to as "Defense Corporation"), a corporation created by Reconstruction Finance Corporation pursuant to Section 5d of the Reconstruction Finance Corporation Act, as amended, to aid the Government of the United States (hereinafter sometimes called the "Government") in its National Defense Program, and Kilian Manufacturing Corporation (hereinafter called "Lessee"), a corporation

January 18, 1943

State of New York;

Defense Plant Corporation
Lafayette Building
811 Vermont Avenue, N. W.
Washington, D. C.

Gentlemen:

1. In consideration of the execution by Defense Plant Corporation (hereinafter called "DPC") with Kilian Manufacturing Company (hereinafter called "Kilian") of an agreement in the form hereto annexed, covering the acquisition and establishment by DPC, and the lease to Kilian, of certain plant facilities at or near Syracuse, New York, deemed by this Department to be necessary in the interests of national defense and essential to enable Kilian to produce and deliver to the Government and/or to suppliers of the Government aircraft control and air frame ball bearings for the War Program, this Department

aircraft

References:
1 - Kilian Manufacturing Corp. - Agreement of Lease with DPC, at 1.
2 - Letter from U.S. War Dept. to Defense Plant Corp., Jan. 18, 1943, at 1.

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Kilian – Discharge Calculations

Honeywell

- Discharge to POTW. Flow data taken from Industrial Wastes Monitoring Report (1974) for facility
- Concentration data taken from EPA Development Documents
 - *EPA Development Document For the Final Effluent Limitations Guidelines and Standards for the Metal Products and Machinery Point Source Category*
- Period Government involvement 1943-1945

Processes effluent CPOI	Effluent concentration (mg/L)	Total Years of Operation 1942-1945	Estimated mass discharge from Facility (Kg/L * LPY * Y)	Percent Pass Through	Mass Discharged To Onondaga Lake (Kg)
Cadmium	1.23	1.5	50.3	70%	35.2
Chromium	11.7	1.5	478.5	70%	334.9
Copper	6.4	1.5	261.7	70%	183.2
Nickel	2.24	1.5	91.6	70%	64.1
Zinc	27.2	1.5	1,112.3	70%	778.6
Lead	91.9	1.5	3,758.1	70%	2,630.7
Silver	0.138	1.5	5.6	70%	4.0
Selenium	0.087	1.5	3.6	70%	2.5
Mercury	0.001	1.5	0.0	70%	0.0

TOTAL MASS DISCHARGED

4,033

*1974 Cyanide Concentrations very high

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Government Ownership and Operation in Syracuse

DRAFT

Honeywell

- Significant Contributors:
 - Aircooled Motors
 - General Electric Co
 - General Motors(Brown-Lipe)
 - Hancock Airfield
 - Kilian Manufacturing
 - **Lipe-Rollway Corp**
 - New Process Gear
 - Oberdorfer Foundries
- Additional Contributors:
 - Allen Tool Corp
 - Amboy City AAF Airfield
 - Beaver Machine and Die Casting
 - Bradley CC and Son, Inc
 - Bristol Myers Co./Cheplin
 - Doyle Machine & Tool Corp
 - Easy Washing Machine Corp
 - Engleberg Huller Co. Inc
 - Flexo Wire Co
 - Grandinette D. MFG Co
 - National Aniline Defense Corp
 - Onondaga Pottery
 - Precision Castings
 - Remington-Rand Corp
 - Smith L.C. and Corona Typewriters
 - Sulzle, B.G, Machine & Electric Co.
 - Unit Electric Tool Co
 - U.S. Hoffman Machinery

Lipe-Rollway – 1942-1947

Honeywell

- The Lipe-Rollway plant produced machine tools and clutches for the Army Ordnance Department during the War
- June 20, 1942:
 - The Army Corps of Engineers acquired through condemnation several tracts of land from Brown-Lipe Gear to expand its Lipe-Rollway facilities
- “...lands are necessary adequately to provide for the manufacture of war supplies and material for the Ordnance Department and other related military purposes.”
- 3.04 acres of land for government use of 5 buildings: Building J, Building B-S (Boiler and Storage), Shipping Building, Oil Storage Building, Primary vault
- March 31, 1947: War Assets Admin. approves sale of Plancor

References:

1- “Civil Action #1055 United States vs. 3.04 Acres of Land, Brown Lipe Gear Co. Inc, 20 June 1942

2-Memo to the Real property Review Board-Lipe Rollway Corporation, 14 October 1947

3-Plot Plan-Lipe Rollway Corp., Proposed Expansion, 11 May 1942

4- “In The United States District Court Is And For The Northern District of New York”, March 29, 1943

5 – War Assets Admin., Memo to Real Property Review Board, Settlement Confidential – Inadmissible for Any Purpose Oct 14, 1947

DRAFT

WEST FAYETTE ST.

Brown-Lipe-Gear Corp.

Building J

Oil Storage

Boiler & Storage

Coal Silo

Shipping

Harbor Brook

Storm Sewer

Primary Vault

Plant #1

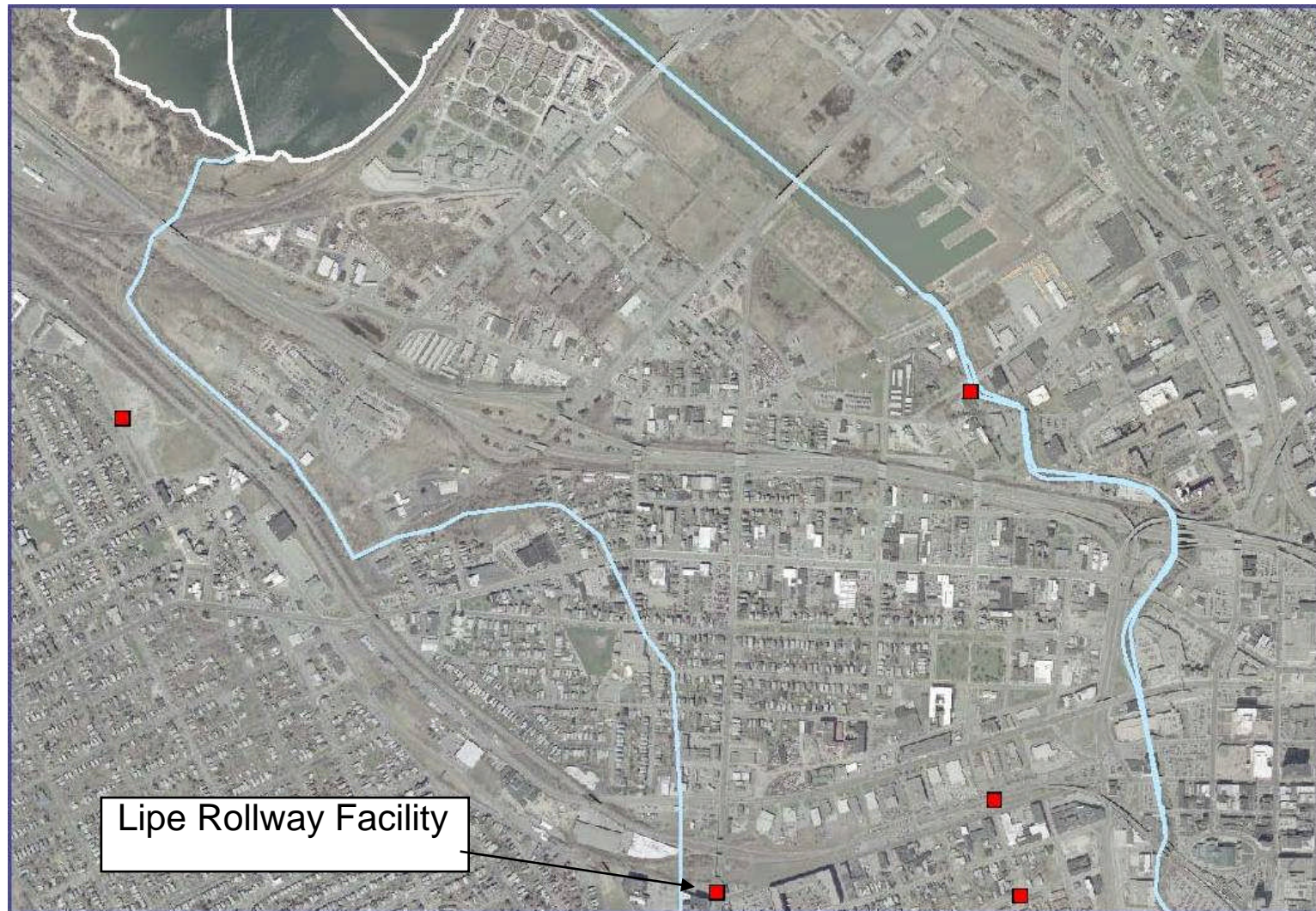
10. AVENUE

NO.	BUILDING	GROSS AREA	WORK AREA	CUBE
1	BOILER & STORAGE	1,017		
2	COAL SILO			
3	SHIPPING			
4	STORM SEWER			
5	STORM SEWER			
6	STORM SEWER			
7	STORM SEWER			
8	STORM SEWER			
9	STORM SEWER			
10	STORM SEWER			
11	STORM SEWER			
12	STORM SEWER			

Lipe Rollway Facility Location

DRAFT

Honeywell



Note:
2003 Onondaga County
12-inch Resolution
Natural Color Orthoimagery



0 0.2 0.4
Miles

Lipe - Rollway
Syracuse NY

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Lipe-Rollway – Discharge Calculations

Honeywell

- Site specific flow data taken from: *O'Brien & Gere 1973 Industrial Wastes Study*
- Concentrations taken from EPA Development Documents:
 - *Development Document For the Final Effluent Limitations Guidelines and Standards for the Metal Products and Machinery Point Source Category*
- Period of Government involvement: 1942-1947

Processes effluent CPOI	EPA Development Document average effluent concentration (mg/L)	Years of War Operation	Estimated mass discharge from Facility (Kg/L * LPY * Y)	Percent that reaches Onondaga Lake	Mass Discharged To Onondaga Lake (Kg)
Cadmium	1.23	5	84.6	70%	59
Chromium	11.7	5	805.1	70%	564
Copper	6.4	5	440.4	70%	308
Nickel	2.24	5	154.1	70%	108
Zinc	27.2	5	1,871.7	70%	1,310
Lead	91.9	5	6,323.8	70%	4,427
Silver	0.138	5	9.5	70%	7
Selenium	0.087	5	6.0	70%	4
Mercury	0.001	5	0.1	70%	0
TOTAL MASS DISCHARGED					6,787

Government Ownership and Operation in Syracuse

DRAFT

Honeywell

- Significant Contributors:
 - Aircooled Motors
 - General Electric Co
 - General Motors(Brown-Lipe)
 - Hancock Airfield
 - Kilian Manufacturing
 - Lipe Rollway Corp
 - **New Process Gear**
 - Oberdorfer Foundries
- Additional Contributors:
 - Allen Tool Corp
 - Amboy City AAF Airfield
 - Beaver Machine and Die Casting
 - Bradley CC and Son, Inc
 - Bristol Myers Co./Cheplin
 - Doyle Machine & Tool Corp
 - Easy Washing Machine Corp
 - Engleberg Huller Co. Inc
 - Flexo Wire Co
 - Grandinette D. MFG Co
 - National Aniline Defense Corp
 - Onondaga Pottery
 - Precision Castings
 - Remington-Rand Corp
 - Smith L.C. and Corona Typewriters
 - Sulzle, B.G, Machine & Electric Co.
 - Unit Electric Tool Co
 - U.S. Hoffman Machinery

New Process Gear – 1941-1946

Honeywell

- Propeller gears for Navy airplanes (Navy BuAer Emergency Plant Facility)
- July 1, 1941: Navy increases capacity of the plant from 330 assemblies per month to 1,000 per month
- June 13, 1942: Navy increases capacity to 1,500/month
- Improvements made on existing buildings and additional plant facility constructed
- 1946: The Navy sells Government-owned facilities and equipment at the site to New Process Gear in exchange for \$65,587
- Plant operated 6 days per week

References:

1 – Report of N.S. Flook on Survey of New Process Gear Company, Syracuse NY visited July 14, 1941, July 19, 1941

2- Cmdr. R. Baldwin to the Chief of the Bureau of Supplies and Accounts, 15 May 1946

New Process Gear – 1941-1946

DRAFT

Honeywell

DPU File No: 210.053

July 19, 1941

REPORT OF N. S. FLOOK ON SURVEY OF NEW PROCESS GEAR COMPANY,
SYRACUSE, NEW YORK, VISITED JULY 14, 1941

GENERAL DESCRIPTION

(a) Original Project - This project consists of Emergency Plant Facilities, principally machine tools, to increase production of New Process Gear Company, Syracuse, New York, under sub-contract 1631, dated July 1, 1941, as amended.

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date

PHYSICAL STATUS

The equipment provided for in the first contract has practically all arrived and been put into productive operation, so that since July 1, 1941, the production rate of 1,000 assemblies per month has been attained.

(c) Directory - The project is in charge of Lieutenant Commander Norton of the Navy Department, Bureau of Aeronautics, at Washington, D. C. Mr. John L. Collins, Sales Engineer, is in charge of the project for the New Process Gear Company. The plant is located at 500 Plum Street, in Syracuse, telephone 2-0121.

PHYSICAL STATUS

The equipment provided for in the first contract has practically all arrived and been put into productive operation, so that since July 1, 1941, the production rate of 1,000 assemblies per month has been attained.

Approximately 50 percent of the equipment provided for in the second contract has been ordered and the balance is expected to be ordered by July 20, 1941. Some 12 percent of this equipment has already been received.

FINANCIAL STATUS

The breakdown of cost for contract 1631 is as follows:

July 1, 1941:

United States owned equipment provided to New Process Gear for war time production contract

New Process Gear – 1941-1946

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Honeywell

REPRODUCED AT THE NATIONAL ARCHIVES

DPU-7 (Rev. 4/15/41)

EXECUTIVE OFFICE OF THE PRESIDENT
Bureau of the Budget--Defense Projects Unit
7-21-41
CH:den

ABSTRACT OF FIELD REPORT

IDENTIFICATION

Construction Agency **Navy Dept.--Bur. of Aero.**
Res. Const. Chief **None**
(Lt. Comdr. Norton, Navy Dept., Bur. of Aero. Washington, D.C.)
Date Visited **7-14-41**
Examiner **Flook**
Date of Report **7-19-41**
Type of Contract **Emer. plant facilities**
Remarks
DPU File **210.053**
Location-Town **Syracuse, N.Y.**
Post **NEW PROCESS GEAR CO.**
Type **Airplane propeller gear & cam plant**
Description **Purchase & installation of machine tools for manufacture of airplane propeller gears & rotating cams**
Revised Cost-Estimated **\$12,401** **\$150,119**
-Authorized **348,452** **150,000**
*Total Nat. Cost-\$492,510, total authorized \$506,452

PHYSICAL STATUS

Time Schedule	Contr. #1	Contr. #2	Men Working
Date Started	12-40	5-41	Does
Completion-Scheduled	4-41	6-42	Force Account
-Probable	--	6-42	WPA
Percent Complete	100%	12%	Engineer
Present General Progress	Comp.	Good	Government Agency
			Total

MATTERS FOR ATTENTION OF WASHINGTON OFFICES

Organization and Control--

a. The equipment provided for in the first contract has practically all been delivered and is now in production. Since July 1, 1941, the required production of 1,000 assemblies per month has been attained.

b. Approximately 50% of the equipment provided for in the second contract has been ordered and the balance is expected to be ordered by July 20, 1941. Some 12% of this equipment has already been received.

New Process Gear – 1941-1946

DRAFT

Honeywell

Plant Facilities Section

Apr 22-32

gmc (new Process Gear corp)

36907

From: The Chief of the Bureau of Aeronautics
To: The Office of the Assistant Secretary of the Navy
(Material Division)

Attention: Property Disposal Branch

Subject: Contract of Sale between the Navy Department,
(Bureau of Aeronautics) and the New Process
Gear Corporation, covering the facilities
furnished to Purchaser for the manufacture of
aircraft propeller parts - Bureau of Aeronautics
Sales Contract NCA-5631.

15 MAY 1946

Enclosures: (1) Two conformed copies Bureau of Aeronautics
(2) Sales Contract NCA-5631.

1. Enclosed herewith are two conformed copies of Bureau of
Aeronautics Sales Contract NCA-5631 covering the sale of certain
Government-owned equipment to the New Process Gear Corporation,
Syracuse, New York.

H. BALDWIN
Comdr., U.S.N.A.
By Direction Chief of Bureau

May 1946:

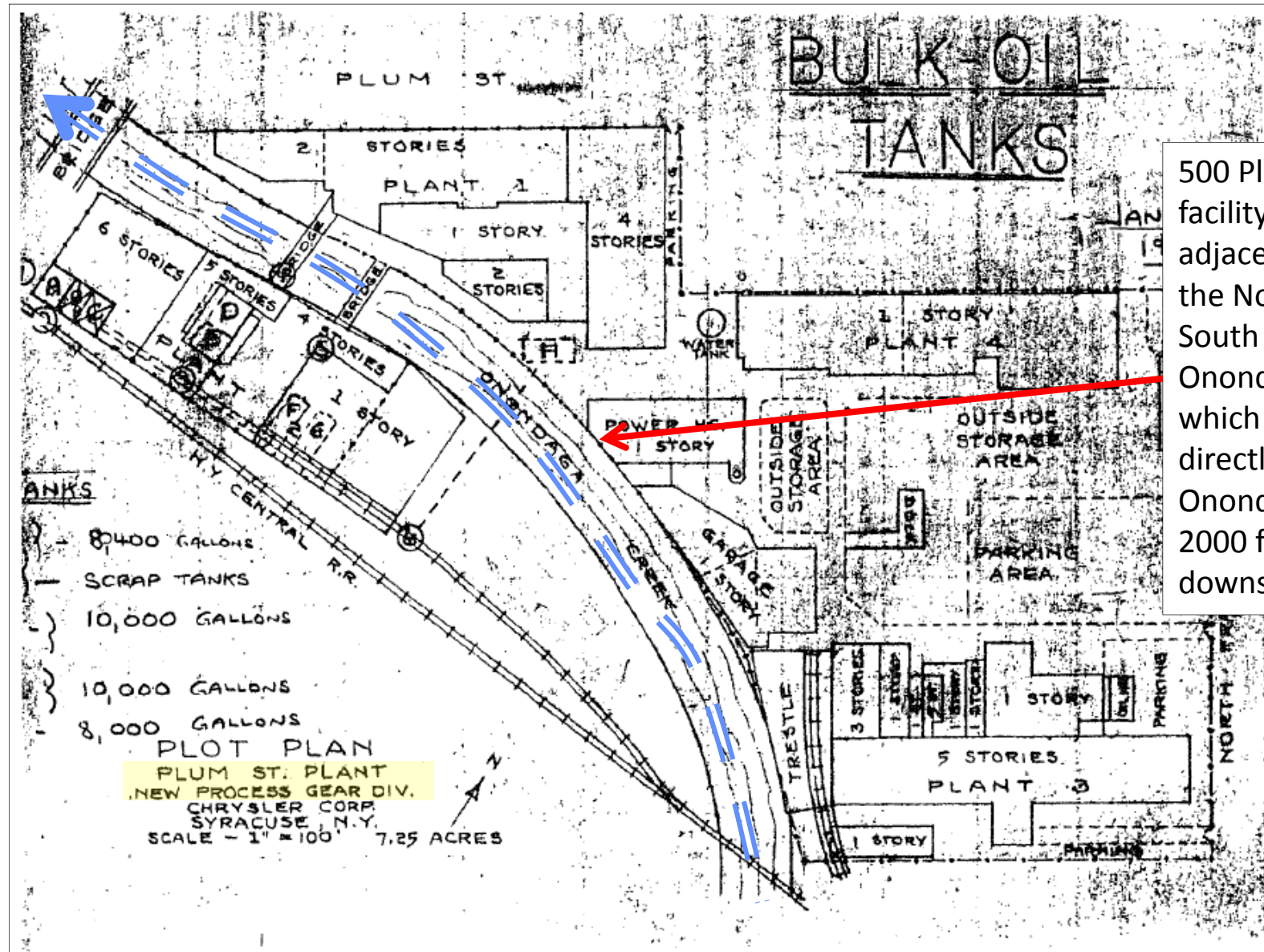
Government owned equipment sold to NPG after it is determined that the equipment is no longer necessary after the war.

“...covering the sale of certain Government-owned equipment to the New Process Gear Corporation, Syracuse, New York.”

New Process Gear – Nexus to Onondaga Lake

DRAFT

Honeywell



New Process Gear – Discharge Calculations

DRAFT

Honeywell

- Flow taken from: *O'Brien & Gere 1973 Industrial Wastes Study*
- Concentrations taken from EPA Development Documents
 - *Development Document For the Final Effluent Limitations Guidelines and Standards for the Metal Products and Machinery Point Source Category*
- Period of Government involvement: 1941-1946

Processes effluent CPOI	EPA Development Document average effluent concentration (mg/L)	Years of War Operation	Estimated mass discharge from Facility (Kg/L * LPY * Y)	Percent that reaches Onondaga Lake	Mass Discharged To Onondaga Lake (Kg)
Cadmium	1.23	5	4,772	70%	3,340
Chromium	11.7	5	45,389	70%	31,772
Copper	6.4	5	24,828	70%	17,380
Nickel	2.24	5	8,690	70%	6,083
Zinc	27.2	5	105,520	70%	73,864
Lead	91.9	5	356,517	70%	249,562
Silver	0.138	5	535	70%	375
Selenium	0.087	5	338	70%	236
Mercury	0.001	5	4	70%	3

TOTAL MASS DISCHARGED

382,615

Government Ownership and Operation in Syracuse

DRAFT

Honeywell

- Significant Contributors:
 - Aircooled Motors
 - General Electric Co
 - General Motors(Brown-Lipe)
 - Hancock Airfield
 - Kilian Manufacturing
 - Lipe Rollway Corp
 - New Process Gear
 - **Oberdorfer Foundries**
- Additional Contributors:
 - Allen Tool Corp
 - Amboy City AAF Airfield
 - Beaver Machine and Die Casting
 - Bradley CC and Son, Inc
 - Bristol Myers Co./Cheplin
 - Doyle Machine & Tool Corp
 - Easy Washing Machine Corp
 - Engleberg Huller Co. Inc
 - Flexo Wire Co
 - Grandinette D. MFG Co
 - National Aniline Defense Corp
 - Onondaga Pottery
 - Precision Castings
 - Remington-Rand Corp
 - Smith L.C. and Corona Typewriters
 - Sulzle, B.G, Machine & Electric Co.
 - Unit Electric Tool Co
 - U.S. Hoffman Machinery

Oberdorfer – 1943-1946

Honeywell

- Plant major producer of cylinder heads, pumps, castings and other vital military items
- December 28, 1942: DPC furnishes equipment for the production of aluminum castings
- Foundry produced 500,000 pounds of aluminum castings/month and 60,000 cylinder heads
- Casting operations 20 hours/day and 6 days/week
- February 1944: 706 employees
- Nov. 3, 1946: Lease terminated after roughly four years of operation

References:

- 1 - TAMS Consultants, Inc. 1997
- 2 - Abstract of Production Report, Oberdorfer Foundries, February 25, 1944
- 3 - Executive Office of the President, Aluminum Foundry, February 25, 1944
- 4 - Executive Office of the President, Aluminum Foundry, October 3, 1944
- 5- Family Foundry Went from Buggies to War Machines, Syracuse Post Standard, Sept 6, 1983.
- 6- <http://www.oberdorferpumps.com/company-history.htm>

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Oberdorfer – 1943-1946

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REPRODUCED AT THE NATIONAL ARCHIVES

RECONSTRUCTION FINANCE CORPORATION
OFFICE OF DEFENSE PLANTS
WASHINGTON, D. C.

Final Accountability Report

Subject: Plancor 1467
Oberdorfer Foundries, Inc.
Syracuse, New York

I. PROJECT SUMMARY

This Plancor consisted of Machinery and Equipment only, of the approximate value of \$117,331.23. The Plancor was sponsored by the War Department for the purpose of producing aluminum sand castings. The Agreement of Lease was terminated effective October 25, 1945 and the Interim Consent was terminated as of November 3, 1946, extending over a period of approximately 46 months. All of the facilities acquired under the Plancor were accounted for through sales to Lessee and others by RFC, scrap authorizations and plant clearance.

Final Acct. Case Files
Box 202
F. Oberdorfer Foundries Inc.
Plancor 1467
Final Accountability E.H. Lohrey

References:

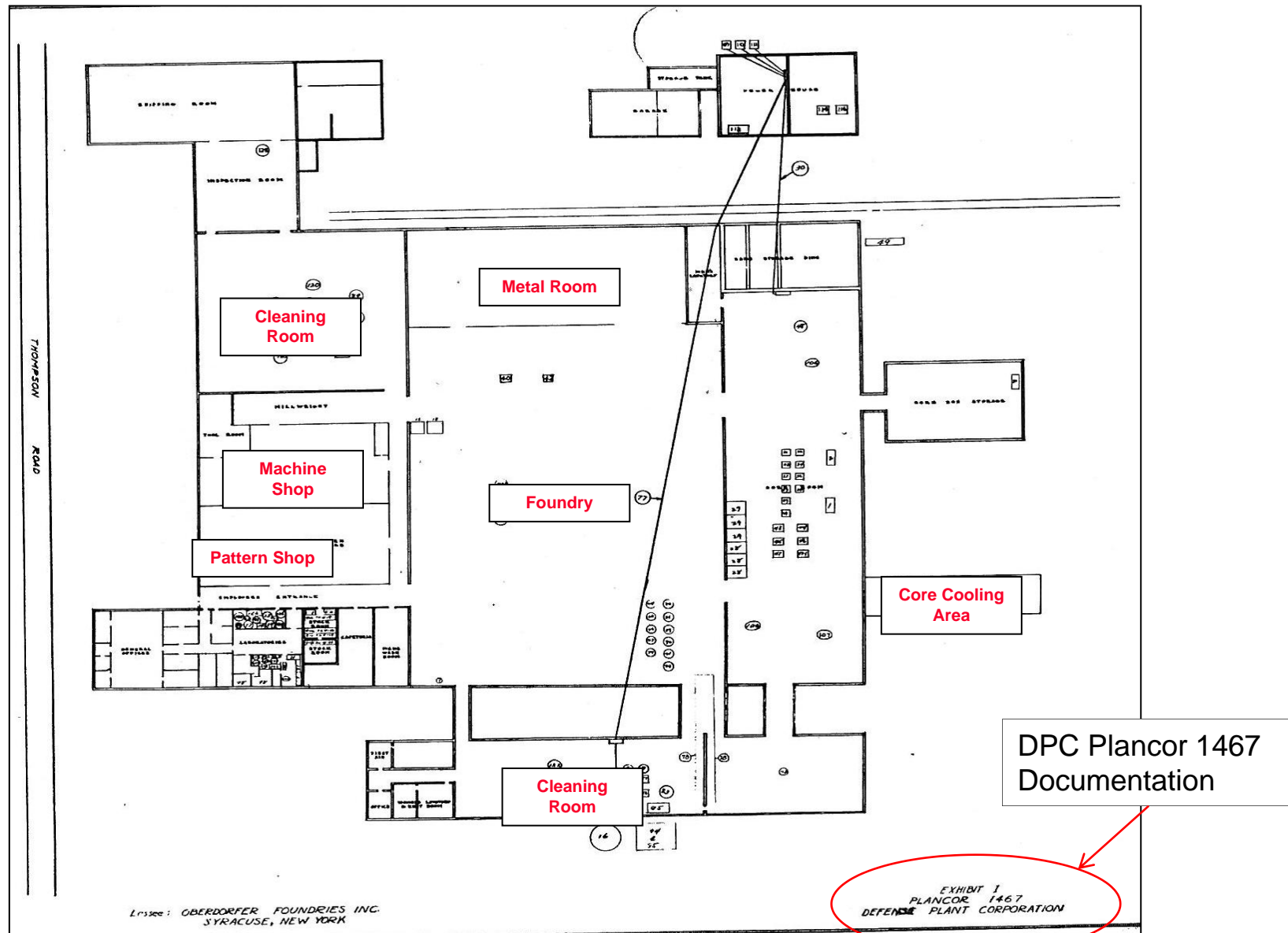
1- RFC – Final Accountability Report, Plancor 1467, at 1.

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1944 Facility Map

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Honeywell



References:

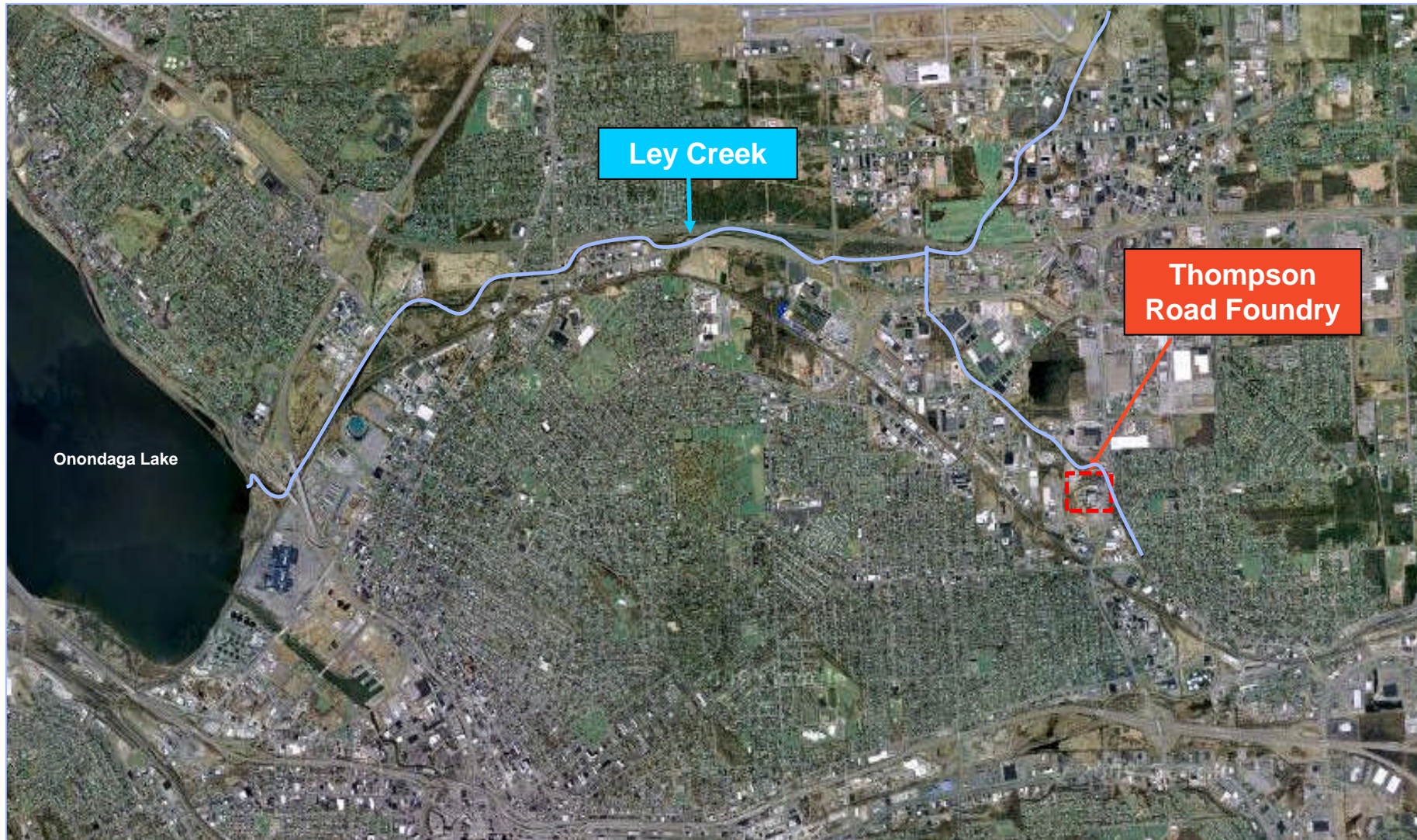
1- Defense Plant Corporation, Supplement No.1 to Engineers
Final Report, December 15, 1944

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Oberdorfer Facility Location

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Oberdorfer – Discharge Calculations

Honeywell

- Site Specific Flow data taken from: *O'Brien & Gere, 1973 Industrial Wastes Study*
- Concentration data taken from EPA Development Documents
 - *EPA Development Document For the Final Effluent Limitations Guidelines and Standards for the Metal Products and Machinery Point Source Category*
- Period of Government involvement: 1943-1946

Processes effluent CPOI	EPA Development Document average effluent concentration (mg/L)	Years of War Operation 1943-1946	Estimated mass discharge from Facility (Kg/L * LPY * Y)	Percent that reaches Onondaga Lake	Mass Discharged To Onondaga Lake (Kg)
Cadmium	1.23	4	160	70%	112
Chromium	11.7	4	1,520	70%	1,064
Copper	6.4	4	831	70%	582
Nickel	2.24	4	291	70%	204
Zinc	27.2	4	3,534	70%	2,474
Lead	91.9	4	11,939	70%	8,357
Silver	0.138	4	18	70%	13
Selenium	0.087	4	11	70%	8
Mercury	0.001	4	0	70%	0
TOTAL MASS DISCHARGED					12,813

Government Ownership and Operation in Syracuse

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Honeywell

- Significant Contributors:
 - Aircooled Motors
 - General Motors(Brown-Lipe)
 - Hancock Airfield
 - Kilian Manufacturing
 - Lipe Rollway Corp
 - New Process Gear
 - Oberdorfer Foundries
 - General Electric Co
- Additional Contributors:
 - Allen Tool Corp
 - Amboy City AAF Airfield
 - Beaver Machine and Die Casting
 - Bradley CC and Son, Inc
 - Bristol Myers Co./Cheplin
 - Doyle Machine & Tool Corp
 - Easy Washing Machine Corp
 - Engleberg Huller Co. Inc
 - Flexo Wire Co
 - Grandinette D. MFG Co
 - National Aniline Defense Corp
 - Onondaga Pottery
 - Precision Castings
 - Remington-Rand Corp
 - Smith L.C. and Corona Typewriters
 - Sulzle, B.G, Machine & Electric Co.
 - Unit Electric Tool Co
 - U.S. Hoffman Machinery

Additional Contributors

Honeywell

- **National Aniline Defense Corp**

- Produced dyes such as: Vat Khaki 2G for cotton uniforms, blue wool dyes for Navy uniforms, Camouflage dyes, Phthalic anhydride for coatings, Stabilizers for smokeless powder, Insect repellents, Detergents for military including saltwater soaps
- Built an ammonium picrate (Explosive D) plant for the U.S. government in Baldwinsville, NY, based on chlorobenzene

- **Onondaga Pottery**

- March 1942, Ordered by Army Ordnance Department to manufacture land mines
- Developed and manufactured non-detectable ceramic anti-tank land mines during World War II

References:

1-
<http://www.colorantshistory.org/NationalAniline.html>

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Additional Contributors

Honeywell

• U.S. Hoffman Machinery

- Army Ordnance Department and the Navy Bureau of Ordnance contracted to produce bomb fuses, 105mm shells and 155mm projectiles in addition to products such as laundry equipment and washing machines
- 1942: 350 employees, predicted 450 employees
- 1942: Permit to discharge sewage or effluents from the sewer extension to serve metal working plants on Thompson Road, “sewer designed to serve the ‘Shell’ and ‘Fuze’ plants”

“The Hoffman Company...announced a lease of 8,000 square feet of floorage in the old Remington-Rand typewriter factory in Gifford Street to be used for storage purposes in connection with government orders.”

“A decision to execute \$873,315 order for Army laundry equipment in this city”

**Hoffman Co.
Will Make
Equipment**

Brown - Lipe - Chapin to
Test Machine Guns on
Plant Roof

OTHERS TO SHARE

Boom Times for Syra-
cuse in 1941 Predicted by
Secretary Norton

References:

1 - *Alphabetic Listing of Major War Supply Contracts, Cumulative, June 1940 Through September 1945*, US Civilian Production Administration

2- U.S. Hoffman Machinery Corporation, Plancor 2351, Agreement of Lease

3- NYSDOH, Discharge Application, October 31, 1942

4- NYSDOH, Letter, Attention-Mr. Devendorf, October 31, 1942 Settlement Confidential – Inadmissible for Any Purpose

72 5-Syracuse Herald American- December 29, 1940

Additional Contributors

Honeywell

- Remington Rand
 - Remington Rand "C" Division converted a vacant plant into a modern pistol manufacturing facility
 - November 1942: First 255 production pistols were accepted by ordnance inspectors
 - March 1945: Manufacturing lowest price pistol in the war effort; by the end of the War Remington Rand produced over 875,000 pistols
 - Plant was located on Dickerson street

Documentary Evidence: 1953, *Comprehensive Plan For Abatement Of Pollution From Waters Of The Onondaga Lake Drainage Basin*

The following industries were found to be discharging untreated industrial wastes, as indicated below, into Onondaga Creek:

<u>Industry</u>	<u>Location</u>	<u>Type of Waste</u>
Lipe-Rollway Company	Maltbie St. Syracuse	Water from treatment of hot steel
New Process Gear Co.	Plumb St. Syracuse	Waste from washing machine contains soap
Canada Dry Bottling Works	Erie Blvd. at West St., Syracuse	Water from bottle washer
Remington Rand*	Gifford St. Syracuse	Plating waste, Oakite solution

References:

1- http://www.coolgunsite.com/collectors_guide.htm

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Additional Known Government Operations

Honeywell

- B.G. Sulzle Machine & Electric Co
 - Machine gun mount parts
- C.C. Bradley and Son, Inc
 - Produced submarine net floats, parts for army tank engines, and 4.2 inch mortar shells
- Doyle Machine and Tool Corp
 - Carburetor parts for aircraft
- Easy Washing Machine Corp
 - Manufactured engine starter motors for bombers and machine gun mounts
- Engleberg Huller Co. Inc.
 - Machined parts for aircraft
- Flexo Wire Co.
 - Assault wire
- Precision Castings
 - Warheads for artillery shells
- Smith L.C. and Corona Typewriters
 - Produced Springfield rifles and other small arms for the U.S. armed forces

References:

1-<http://www.heritageresearch.com/ourlibrary/databases/wwii/industries/newyork.htm>

2-<http://www.davidbradley.net/History.htm>

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Proposed Agenda

Honeywell

- Overview of Lake Remedy and Progress
- Government Ownership and Operation in Syracuse
 - 26 Specific Locations
 - ◆ 8 primary contributors
- **Conservative Assumptions**
- Potential Calculation of Government Share of Costs

Conservative Assumptions

Honeywell

- Total discharge calculated solely from process water:
 - Waste stream discharge does not include groundwater, stormwater, or other site drainage
- Concentration data for each facility based upon EPA Development Data
- Discharge rates do not include spikes due to spills and upsets
- Calculations based upon flow data much more recent than the period of Government ownership; because environmental practices typically improve with time, historical discharge data is likely greater than assumed

Proposed Agenda

Honeywell

- Overview of Lake Remedy and Progress
- Government Ownership and Operation in Syracuse
 - 26 Specific Locations
 - ◆ 8 primary contributors
- Conservative Assumptions
- **Potential Calculation of Government Share of Costs**

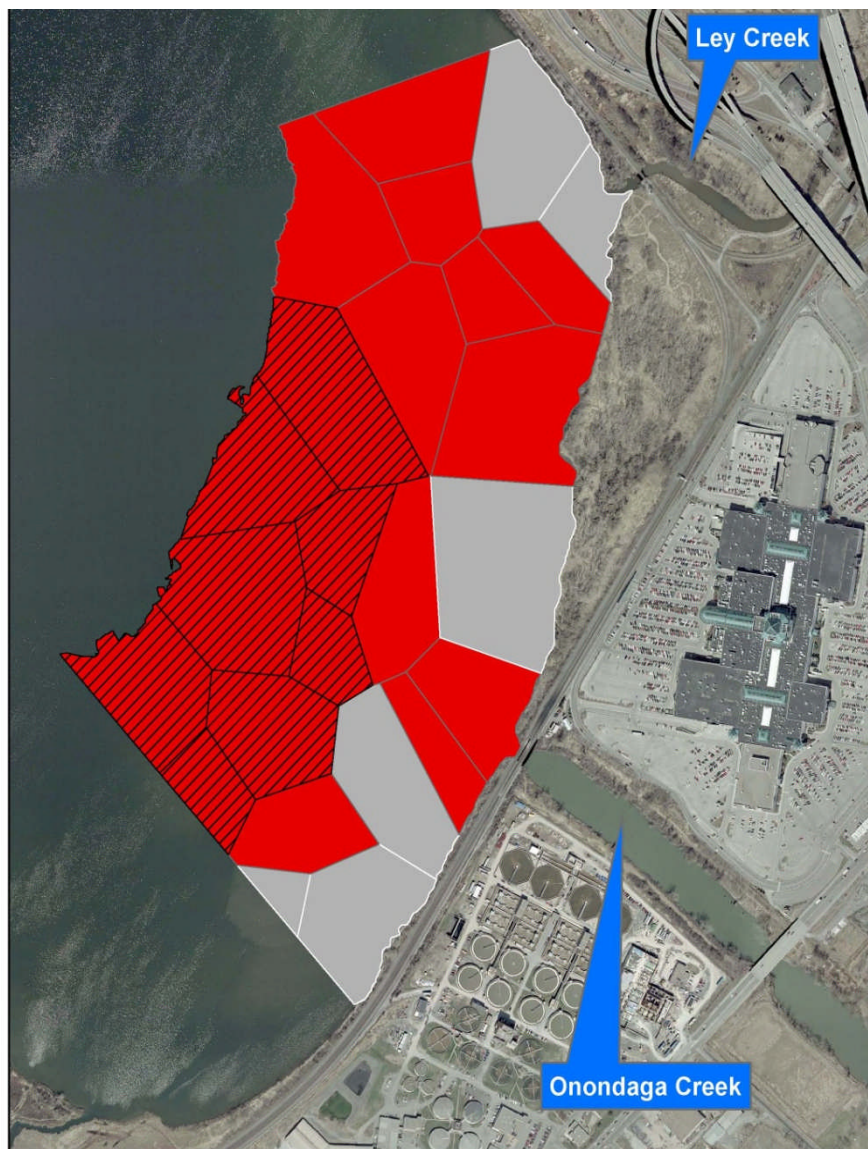
Government Allocation

Honeywell

- For the purposes of settlement discussions, discharge estimated for 7 of the 26 government owned/operated facilities, assuming 70% pass through
- This calculation excludes data for Hancock Airfield
- Total calculated mass discharged into Onondaga Lake from 7 facilities based on available data: **1,271,201 kg**

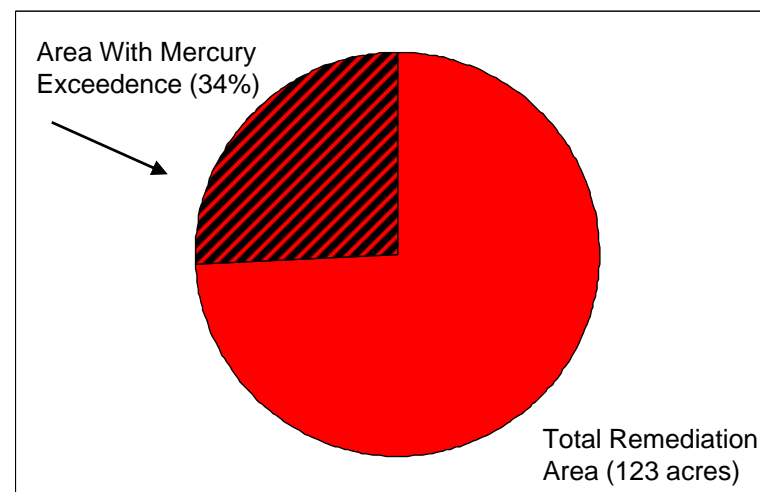
	Government Facility	Mass Discharged
SMU 6 Discharges		
	General Electric	139,780
	Kilian	4,033
	New Process Gear	382,615
	Oberdorfer	12,813
SMU 6 Subtotal		539,241
SMU 7 Discharges		
	General Motors	718,961
	Lipe-Rollway	6,787
SMU 7 Subtotal		725,748
Other SMUs		
	Aircooled Motors	6,212
Total Mass Discharged		1,271,201

AREAS OF SEDIMENT EXCEEDING SPECIFIC METAL PECS AND/OR THE MERCURY PEC

Honeywell

Pertinent CPOIs

- ☐ Chromium
- ☐ Cadmium
- ☐ Copper
- ☐ Zinc
- ☐ Lead
- ☐ Nickel



Government Allocation

Honeywell

- Calculated discharges account for 18% of mass of hazardous substances in SMUs 6 & 7. Mass would equal approximately 2% of entire lake.
- Significant uncertainties remain:
 - Ownership/operation and discharges at remaining WWII government facilities
 - Discharge and impacts from Hancock facility
 - Adjustments for equitable factors, including operator shares, Honeywell cooperation, etc.
- Depending upon further factual development, government share could be as high as 5%.
- Honeywell prepared to resolve claim for 3.5% of all costs and natural resource damages.